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ABSTRACT

The purposes of the Colloquium were to identify the pertinent questions relative to the growing influx of foreign graduate students to the United States and to reach consensus on priorities for research and action. This document presents: (1) the highlights of the Colloquium on (a) the situation in the United States, (b) the situation abroad, (c) the implications for research and action, and (d) the resources for action and research; (2) summaries of presentations of research to date relating to foreign graduate students and of the discussion of these presentations; (3) summaries of the presentations and comments on the major issues and problems in foreign graduate student exchanges warranting research and action; and (4) a discussion on priorities for action and recommendations. The appendices contain a paper by George H. Huganir Jr. entitled "The Foreign Graduate Student: An Opportunity for Higher Education in America?" and a review of the research on foreign graduate students by Barbara J. Walton. A list of the Colloquium participants is also included. (AF)

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The Foreign Graduate Student: Priorities for Research and Action

A colloquium held at Wingspread, Racine, Wisconsin, June 16-17, 1970

Sponsored by:

The National Liaison Committee on
Foreign Student Admissions

composed of:

American Association of Collegiate Registrars and Admissions Officers

College Entrance Examination Board

Council of Graduate Schools

Institute of International Education

National Association for Foreign Student Affairs

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Foreword

The colloquium on "The Foreign Graduate Student: Priorities for Research and Action" was sponsored by the National Liaison Committee on Foreign Student Admissions, composed of the American Association of Collegiate Registrars and Admissions Officers (AACRAO), the College Entrance Examination Board, the Council of Graduate Schools in the United States (CGS), the Institute of International Education (IIE), and the National Association for Foreign Student Affairs (NAFSA). The colloquium was made possible by a contribution from the Johnson Foundation providing conference facilities and services, in addition to meals and accommodations for colloquium participants. Administrative costs incurred by the National Liaison Committee and the cost of publishing this book were covered through a grant from the Bureau of Educational and Cultural Affairs (CU) of the Department of State. This was the second colloquium sponsored by the National Liaison Committee. The first was held at Wingspread on March 30-31, 1967, and a collection of papers from that colloquium was published as *University, Government, and the Foreign Graduate Student* (New York: College Entrance Examination Board, 1969, 57 pp.).

Participants in the colloquium came from American graduate schools, interuniversity organizations, United States federal and state government agencies, and private organizations concerned with the education of foreign graduate students at United States institutions. A list of the 51 participants appears in the back of this book.

George P. Springer, vice president for research and dean of the graduate school of the University of New Mexico, was colloquium director. Gustave O. Arlt, president of the CGS, issued the letters of invitation. George H. Huganir Jr., dean of the graduate school, Temple University, and Barbara J. Walton, consultant on cross-cultural education, prepared background papers for the colloquium. (The background papers appear as appendixes to this book.) Mrs. Jane Jacqz, of the African-American Institute, was reporter of the colloquium's discussions and prepared the manuscript of this book. The colloquium was organized for the National Liaison Committee by Sanford C. Jameson, associate for international education, College Entrance Examination Board.

The National Liaison Committee is indebted to the Department of State and the Johnson Foundation for their interest and continued support of this project.

Sanford C. Jameson
For the National Liaison Committee

Preface

To the small group of American educators and foundation and government officials long devoted to the international dimension of graduate education, the June 1970 Wingspread Colloquium on the Foreign Graduate Student came at a time of anxiety and concern. Faced with growing public skepticism about the performance of their institutions, plagued by growing pressures on their budgets, frightened by spreading campus unrest, representatives of these institutions met to reconsider some old, nagging, and unanswered questions about the value of their respective foreign student programs. Why admit more foreign graduate students to American graduate schools? What are the cost–benefit calculations? How are our varied national interests served? When do the talents and hopes of an individual take precedence over manpower priorities? These and other old questions are ever more insistently raised on campuses, in state legislatures, here, and abroad.

This was the context in which the colloquium worked to discover some directions in which answers might lie. From long exposure to these problems the planners of the colloquium knew that too many policies had remained undefined and unenunciated, that too many assumptions had long gone unchallenged, too many hypotheses untested for lack of hard data. Hence the focus on research. It stands to reason that faced with massive and conflicting claims on limited resources, one uses the latter wisely. Using resources wisely involves, as one participant put it, at least three ingredients: (1) know your objectives; (2) count your alternative means for achieving them; and (3) assess the probability of success. These procedures, it was suggested, were overdue in our field.

The colloquium shared a keen sense of awareness that it met amid major shifts in the academic ambience here and abroad, new dislocations in the professional job market here and abroad, and progressive polarization of political attitudes in this country as well as new political realities abroad. To this sense of awareness one often-expressed response was that we Americans "must educate for change." An admirable ideal, indeed! But do we know how to do this for foreigners when we are so often individually and corporately resistant to doing it for ourselves? "Education for change" transcends application merely to social change.

It goes to the very heart of the graduate academic enterprise as well. Do specialists promote change more readily than generalists? Do American doctors and masters usually promote or resist professional change in this country or elsewhere? What about the disciplinary resistance on every campus to interdisciplinary approaches? As one participant pointed out, national manpower needs here and elsewhere are always expressed in disciplinary terms. Psychologists now talk of "future shock." Where does that leave "education for change"?

These were some of the fundamental themes heard in variations over the two-day period. The questions they imply are not easily answered and require further research and study.

Some hopeful, new policy approaches were brought to the colloquium by the Assistant Secretary of State for Educational and Cultural Affairs, the Honorable John Richardson Jr. For the past decade his high office has suffered a turnover of incumbents exceeding the current rate for university presidents by far. I hope that his persistence and candor informed with tact will bring the educational dimension of United States foreign policy back to its rightful place in the sun. He will need much help from the hard-pressed universities and others to justify a revival of the Fulbright and other proven programs to a skeptical and otherwise preoccupied Congress and nation. He will need help to implement some untried ideas.

It was gratifying indeed that several representatives of state coordinating boards and university boards of regents attended the colloquium. Too long have these policy makers been kept aloof from the issues of international education on the campuses. One would hope that future deliberations will include more and more of them.

I express my thanks to Gus Arlt, Sanford Jameson, and Al Sims for their immense help in the conceptual as well as the detailed planning for this colloquium; to Miss Marita Houlihan for her long-standing, loyal support; and to Mrs. Jane Jacqz for a swift, superb reportorial performance. Not many could have written up as deftly the contentions of a very vocal group of ex-teachers, lawyers, and other professional persuaders.

George P. Springer
Director of the Colloquium

1. Introduction

This book is the result of a colloquium held at Wingspread, the Johnson Foundation, Racine, Wisconsin, on June 16 and 17, 1970. The purposes of the colloquium were to identify the pertinent questions relative to the growing influx of foreign graduate students to the United States and to reach consensus on priorities for research and action.

Introductory Remarks by George P. Springer

In opening the colloquium, Springer observed that numerous conferences and publications in recent years have called for good research on exchange-of-persons programs. Some response has been made to this demand for research, but to date the response has not been adequate. (The formation recently by the Association of Graduate Schools and the Council of Graduate Schools of a joint committee to promote research is an encouraging development.)

Research is needed on two levels: High-level, policy-oriented research is needed on such questions as the value of bringing foreign graduate students to the United States. At another level, the value of such exchanges is assumed, and research focuses on how well exchanges are being carried out. At this level, attention must be given to such questions as criteria for selecting foreign graduate students, and predictors of students' success or failure at an American university. These two levels of research must go forward side by side, without expectation of conclusive answers at either level. The situation is in a state of flux. As problems and conditions change, answers change. Answers that were satisfactory five years ago may need reexamination—and this may lead to new conclusions. Participants in the colloquium were urged to identify and recommend priority areas for research and action.

2. Highlights of the Colloquium

The situation today regarding foreign graduate students is markedly different from the situation 10 years ago—or even 5. Graduate student exchanges are taking place now in a new frame of reference. The changed conditions in America and abroad require the development of new national and institutional rationales for offering graduate education to foreign students and the rethinking of—and, if need be, modification of—policies and practices. More and better operational and research data are needed as a basis for determining priorities and policies and for improving processes.

Situation in the United States

In the words of Robert H. Baker, "We are facing dark days."

The demand for the opportunity to study in the United States by foreign graduate students continues to rise. Foreign graduate students on American campuses in 1969 totaled 54,034: 45 percent of all foreign students at American institutions, as compared with 35 percent 10 years ago. All signs indicate that the flow of foreign graduate students to the United States will continue to grow.

But the era of affluence for United States graduate education has come to an end—so abruptly that we may not yet perceive it. The costs of graduate education have risen phenomenally, owing to increases in the salaries of faculty and other university personnel and rising construction, computer, and library costs. At the same time, tuition increases may be reaching their limit at many institutions; endowments have declined or stopped; annual giving has been affected adversely by student demonstrations; and federal support for research and fellowships has been seriously cut back (federally supported fellowships have been reduced by 62 percent in the last four years, and a further cut of 33 percent is possible before next year). Growing costs and reduced support have required many graduate schools to reduce their intake of new students —often by as much as 33 percent.

Faced with rising American demands—including demands from minority/poverty students—on sharply limited places and resources, state legislatures are increasingly protective of local students. Tariff walls are

rising against out-of-state students, including foreign students. Everywhere, choices must be made. Who gets admitted and how resources are used is increasingly a matter of public policy.

Situation Abroad

The situation abroad, especially in developing countries, is also very different from what it was 10 years ago. A decade past, aid to developing areas was seen as being simply a matter of educating more people. Today many countries are experiencing problems of "educational glut" —an oversupply of overtrained or wrongly trained people. Faced with the prospect of no employment or unsuitable employment, growing numbers of foreign graduates fail to return home. Poor teaching and research conditions and lack of supportive personnel are factors seriously impeding the return of American-trained scholars and professionals. All signs suggest that pressures for the movement of highly trained people from the poorer countries to rich nations will increase.

Implications for Research and Action

1. *Policy Formulation.* American universities, the government, foundations, and private organizations have traditionally regarded foreign student exchanges as a "good thing." But they have never had to prove it. Today there is urgent need for national and institutional rationales.

At the national level, justification is needed for the continued education of foreign graduates in terms of the national and transnational needs and interests. It must be shown that they make a vital contribution both here and on return home. A recommendation on this point from the colloquium follows.

There is need for a long-range national policy on international exchange of graduate students to which individual institutions and graduate schools can relate their own policies. Clearly, such an expression of policy ought to be arrived at in consultation between academic institutions and the government.

At the same time, each university must determine its institutional objectives in receiving foreign graduate students and formulate an institutional rationale that justifies the use of places and resources for foreign graduates in terms of its own objectives. This is especially important for publicly supported institutions. The colloquium recommended:

Each university should develop an explicit rationale for the admission of foreign students and prepare itself for closer scrutiny by boards of trustees or regents, as well as by state and other funding agencies, as to why these students are being admitted and supported. This rationale is intended for internal comprehension and planning in the first instance, and eventually for the formulation of the national policy referred to above.

Although rationales will differ from university to university according to institutional objectives, universities may do well to focus on their traditional educational interests—the generation and dissemination of knowledge—and describe the purposes and roles of foreign students in relation to these interests.

2. *Administration of Exchanges.* Steps should be taken to establish better links with foreign governments, universities, and organizations as a basis for assessing foreign educational and manpower needs, planning exchange efforts, and enhancing our own institutional capacities for generating and disseminating knowledge. A recommendation from the colloquium follows.

In developing policies concerning the admission and training of foreign graduate students, sustained efforts should be made to consult with appropriate people overseas involved in the formal educational system as well as others with legitimate concerns in national manpower objectives.

Greater efforts should be made to relate graduate admissions to the purposes of training and manpower needs and employment opportunities in foreign countries, especially developing countries.

Student counseling abroad should be improved, with better information made available on the strengths and weaknesses of particular graduate schools and departments within schools and on United States curriculum changes.

The relevance of United States curriculums for foreign students, especially in such fields as agriculture and engineering, must be weighed. It is hoped that current attempts to improve graduate education generally and to introduce interdisciplinary study of such subjects as ecology will benefit foreign as well as American students. Other efforts to improve the quality of students' American experience should include concern for students' social experiences and families.

More attention must be given to the situations to which graduates re-

turn, including surroundings that permit serious scholarship and practice of their professions with adequate supportive personnel.

3. *Need for Research.* A better understanding of the exchange process is essential for rationalizing and justifying exchanges, for determining allocations of resources, for guiding and improving the vast flow of unsponsored students, and for improving specific practices. Much research has been done and various good studies, notably the AACRAO-AID Participant Selection and Placement Study, are in process, but changed conditions require that previously valid answers be reexamined and that new answers be sought to many questions.

Operational data should be developed and disseminated on what foreign nationals are being trained, where, and at what levels; foreign manpower needs, educational opportunities, and governmental policies regarding utilization of trained manpower, especially in developing areas; policies of American universities and departments in respect to admission of foreign graduate students; sources of financial aid for foreign graduate students; the rise in applications from foreign student immigrants; the use of foreign students as laboratory or teaching assistants; "true costs" of United States graduate education; and rates of production of United States Ph.D.s and probabilities of appropriate employment opportunities. On one of these points the colloquium recommended:

There is need for a more complete annual census of foreign students, going beyond the data reported in Open Doors[1] *and including the financial aid they receive. It was suggested that the Bowen study at Princeton*[2] *be used as a sampling of the foreign student situation, though the study as such concerns financial aid to graduate students in general. Between the complexities of the Bowen approach and a simplistic approach to "financial aid," an intermediate approach may be indicated: to categorize support into "service" and "nonservice," and to subcategorize "service" by types of assistantship. On the other side, donor*

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1. *Open Doors, 1969: Report on International Exchange.* New York: Institute of International Education, 1969, 81 pp.

2. William G. Bowen is director of a study of graduate student support, focusing on graduate students at 11 universities that are receiving seven-year grants from The Ford Foundation.

groups could be distinguished as "federal," "state," "private," "joint," and "other."

Intermediate and longer-term research is needed on a wide range of questions relating to the educational exchange experience and exchange processes. Topics identified for possible exploration include how to assess the foreign graduate student candidate pool, with special reference to students' economic and social backgrounds; effective selection and screening practices; determination of the desirable "critical mass" of foreign students in an American institution; institutional setting as a variable affecting the education of foreign students; the cultural dimension of the learning process; education for social change and how to effect social change; foreign students' performance in relation to data known at the time of their admission; relevance of United States curriculum for foreign students, or the level of United States training in relation to a student's return home. On this last point, the colloquium recommended:

Greater attention must be paid to the utility of master's programs for foreign graduate students. As likely subjects for study of this problem, the LASPAU *and* AFGRAD *programs were singled out. The vote was unanimous that a study of this program be undertaken by the Council of Graduate Schools or other appropriate agency.*

4. Length of Research Undertakings. Much information already exists that might be tapped with profitable result. The colloquium recommended:

Available data should be more systematically tapped, for example, the consultations conducted by the NAFSA *Field Service program and the* IIE *data relating to selection and admissions procedures as reported in* Open Doors. *Data underlying these consultations or publications should be more fully analyzed and exploited.*

Short-term research should also be undertaken to develop information as a basis for justifying foreign graduate student exchanges to legislators and others in the months ahead. Focusing on particular nationality groups that have made up a major proportion of the foreign student population, for example, Chinese and Indian students, could help to make such research manageable.

Other research on more complex matters relating to the purposes and processes of educational exchange, essential to a deeper understanding

of the entire effort, will necessarily be longer, costly, and more complicated.

Resources for Action and Research

Increased support is needed for graduate education in general and foreign graduate education in particular, especially from United States government sources. The colloquium recommended:

The fellowship and traineeship programs sponsored by various government agencies have provided much needed and appreciated direct support for graduate students and graduate schools. Most of these programs benefit American students, but their existence did free some limited monies in many universities for the support of students from abroad. Converting this direct support system to a loan program would significantly reduce benefits, both to American and foreign graduate students as well as to institutions. The members of this conference urge, in the most vigorous terms, that fellowship support systems be maintained.

Funding should also be sought from combinations of federal agencies or jointly from federal and private sources for proposed new exchange projects, "packaged" to show purposes and costs in relation to objectives.

An effort must be made, finally, to identify possible sources of support for the range of research activities needed to justify, plan, and improve graduate student exchanges.

3. Research on Foreign Graduate Students: A Review of the Literature

The initial sessions of the colloquium were devoted to a presentation on research to date relating to foreign graduate students and discussion of this presentation and related issues. Remarks by speakers and participants are summarized below.

Presentation by Homer D. Higbee

A summary of the principal points contained in Barbara J. Walton's background paper "Research on Foreign Students: A Review of the Literature," was offered by Homer D. Higbee, assistant dean of the Educational Exchange at Michigan State University. Walton's paper appears as an Appendix to this book.

In preparation for his summary, Higbee reread various relevant materials, including a paper prepared by Walton for the Office of External Research of the Department of State in 1967 and Margaret Cormack's paper "Evaluation of Research on Educational Exchange," prepared for the Bureau of Educational and Cultural Affairs of the Department of State in 1962. Both papers indicate that there is an abundance of material. But reflection suggests that new inquiries are necessary and that findings from old inquiries must be reviewed carefully for continuing applicability. It is necessary to look both forward and backward. A first task of this colloquium is to review the research already done and see what this implies for future research.

As indicated in Walton's paper, the proportion of graduate students among foreign students at United States universities is rising steadily. According to *Open Doors*,[1] in 1969 graduate students were 45 percent of the total foreign student population of 121,362. Ten years ago, they totaled only 35 percent. A more detailed breakdown of figures in *Open Doors* for 1959 and 1969 reveals the following facts.

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1. *Open Doors, 1969: Report on International Exchange.* New York: Institute of International Education, 1969, pp. 7, 11.

In 1959, there were 44,536 foreign students at United States colleges and universities, as compared with 121,362 in 1969. In 1959, 61.4 percent of all foreign students resided at 6.4 percent of universities reporting any foreign students. In 1969, 72.6 percent of all foreign students were concentrated at 6.6 percent of United States universities. While the total number of United States universities reporting foreign students has risen—from 1,365 in 1959 to 2,047 in 1969—the concentration of foreign students at a limited number of universities has steadily increased. In 1969, 86.8 percent of foreign graduate students were concentrated at 6.6 percent of American universities. In raw numbers, 46,925 students out of the total foreign graduate student population of 54,034 were enrolled at only 137 United States institutions. It is obvious that it is these 137 universities that are most likely to be concerned with the subject matter of this colloquium.

Walton reports that there has been a tendency among "policy planners and administrators" to favor graduates over undergraduates. This may be because of wide agreement on the following points: (1) that foreign graduates have less severe problems in adjusting to their American environment than undergraduates; (2) that graduates are most likely to be satisfied with their United States academic programs; (3) that they generally perform at an acceptable academic level;[2] (4) that graduates have more precise educational and professional goals than undergraduates; and (5) that they are less concerned than undergraduates with learning about the United States and its culture and institutions and less interested in informing Americans about their own cultures.

Walton also reports the findings of Selby and Woods (1966) about 18 non-European graduate students at Stanford University. This study

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2. While most studies indicate satisfactory academic performance by foreign graduate students, a study at the University of Michigan showed that, between 1947 and 1949, 44 percent of foreign graduates were not performing satisfactorily; a study at Michigan State University revealed that foreign Ph.D. candidates performed as well as American doctoral candidates, but foreign M.A. candidates did less well, with 28 percent performing unsatisfactorily as compared with 14 percent of students generally. See Peter T. Hountras, "Academic Probation among Foreign Graduate Students," *School and Society*, Vol. 84, September 1, 1956, pp. 75-77, and Homer Higbee, "A Report on a Three-Term Survey of the Academic Performance of Foreign Students at Michigan State University," Graduate Council of Michigan State University, February 1965.

suggests that the major preoccupation of foreign students at a high-pressure institution is keeping up academically and that academic success is a major determinant of student adjustment. Moreover, pressure to achieve may prevent the development of close personal relationships with American students or others in the college community. "The structure of academic life precludes social activities of a leisurely kind as well as wide social contact with American students. Student morale rises and falls with the academic seasons and, in fact, the academic pressures pre-empt his attention and energy." A conclusion of the study was that the institutional setting is a powerful variable affecting student adjustment. Experience also suggests that the "goal-shock variable" should receive increasing attention, especially among older students.

Walton's paper also deals with some studies on the curricular relevance of American institutions. Various studies suggest that American curriculums in such fields as agriculture and engineering are not always relevant, especially for students from developing areas. (The findings from two recent studies by the National Association for Foreign Student Affairs on the relevance of United States curriculums in business administration and engineering for Latin America, undertaken in cooperation with Latin American students and educators, may be "generalizable" beyond Latin America.)

There has also been a growing number of studies on the brain drain—the loss of foreign medical students was an early subject for concern. As a whole, brain drain studies have not yet yielded acceptably conclusive answers about the economic loss to countries whose students remain in the United States, but they suggest that students trained to the Ph.D. level in engineering, medicine, and the sciences are more likely to remain in the United States than those with less graduate training or in other disciplines.

One section of Walton's paper deals with gaps in research. This is purposely short but does mention the need for more research on the institutional setting as an important variable in foreign student exchanges, on students' personality development and self-perception, on understanding the concept of culture in an operational sense, on conflict resolution, and on the process of the dynamic of social change. Walton's "negative hypothesis" is that professional training as it exists in the United States today "tends to diminish aspiration toward social

change and re-inforce career aspirations toward money and prestige, replacing whatever 'idealistic' goals are held by students with pragmatic goals." Walton has also suggested research on the cultural dimension of the learning process.

It may be useful to recall the categories of research undertaken to date on foreign students, as set forth by Walton in her 1967 monograph:

1. Favorable attitudes toward the United States.
2. Development of youth leadership.
3. What students have learned and how they use it.
4. Migration of foreign students.
5. Cross-cultural adjustment.
6. Orientation and academic performance.
7. Impact of foreign students on the United States.

Panel Discussion

Reactions to Barbara J. Walton's paper, as summarized by Homer D. Higbee, were offered by a panel composed of Robert H. Baker, dean of the graduate school at Northwestern University; Ivan Putman Jr., acting university dean of the State University of New York; and Higbee.

Remarks by Robert H. Baker

It is striking that all conferences, speeches, and papers on foreign student exchanges over a period of years have been confined to a narrow group of interested, dedicated people. These people write and talk for each other. But the broader literature almost ignores the problems that concern them. Walton's bibliography lists studies by people who have spent their life in this field, but these studies are rarely read—even by associates at their own institutions or foundations. Various recent books on United States doctoral education make almost no reference to foreign students as displaying any special role. This omission is odd, as the doctoral degrees granted in the United States for several years have included approximately 10 percent foreign students.

Another striking aspect is that foreign student exchanges occur as if there were no plans for them and no policy governing them. In fact, there are no plans and there is no policy. As there is no policy for higher education in America of Americans, we can scarcely expect that there

be a policy for foreign students. Americans generally welcome foreign students and hope that some good derives from their coming here; similarly, we approve of sending Americans abroad. These views are based on the assumption that we can afford exchanges. We have no real confidence that they do any good, but we doubt that they do harm. We have, in short, a permissive view.

It is almost certain that the constraints of the future will challenge these permissive attitudes to a considerable degree. At best, our "nonattention" to students from abroad will be transformed into a vital concern for such students, and this transformation will be accompanied by increased commitments of funds, earmarked for specific purposes. Funds available for foreign students to date have largely been ripple effects from support given by United States universities, foundations, and the federal government to graduate education generally. American universities alone have annually supported foreign graduate students in an amount sufficient to start an entire new university; this is a considerable sum. It would be desirable for the United States government to set aside a fraction of the support it gives American students for foreign students. (At an earlier meeting of graduate deans, 10 percent was suggested as a proper fraction for foreign student fellowships and traineeships.)

At the moment, foreign graduate students are facing dark days. Their study at American institutions is seriously threatened.

Remarks by Ivan Putman Jr.

It is probable that the percentage of graduate students among the foreign student population at United States institutions will continue to rise, partly because more graduates are applying than undergraduates. Other reasons for the rise in the graduate student population include the fact that universities in some developing countries are reluctant to release their undergraduates while eager to send graduates abroad. United States government programs increasingly emphasize graduate-level study. And United States universities also have reasons for accepting increasing numbers of graduates, including the fact that there are fewer problems with graduates, they have better-focused goals, they are more committed, their ability has been demonstrated before they come, they are more likely to succeed here, and there is a higher rate of return home

among foreign graduate students than undergraduates.

On the other hand, United States universities have sometimes admitted foreign graduates not because of concern for the human resource needs of developing countries but because they themselves need foreign students. In some American graduate departments and programs there are not enough American applicants to fill available places. (Certain departments at some universities have as many as 80 percent foreign student enrollments. This overbalance suggests that there is little need among American students for these departments and that they have been organized in response to faculty demands.) American universities also need foreign graduates as teaching assistants and lab technicians, since the supply of United States candidates for these low-paying positions is inadequate. This practice may not be a good one and merits careful study.

American universities today face tighter budgets. They must ask hard questions about what they can afford and what should be the relationship between foreign and American students. No one has yet focused sufficiently on the place of the foreign student in United States graduate education. This may be an appropriate subject for research.

Another topic for research is the relevance of United States curriculums for foreign students. American education *is* American education—parochial in many ways—designed for American students who will work in an American setting. Americans have assumed that our educational system is universal, a cultural constant. It is so much a part of our lives that it has never occurred to us that it may not be applicable abroad. But there *are* problems in exporting it. The experience of the Agency for International Development (AID), which is concerned with the practical application of United States training in a foreign setting, may be especially relevant in this regard. The matter of the relevancy of a foreign student's United States training should be a component of his whole American educational experience. Some institutions are mounting useful programs, notably Cornell University, which gives its Ph.D. candidates interested in foreign agriculture—including foreign candidates—an opportunity to do their research abroad. (A total of 42 doctoral candidates did their research abroad this year, of whom half were foreign students who had taken their course work at Cornell; many of these students did their research in their home countries. An inter-

esting feature of the program is that Cornell requires its students to file their completed research reports with authorities in the host—or home—country.)

Another possible theme for new research is how to effect change abroad. America is educating foreign leaders. Is it educating them to bring about change? This is a matter of concern to AID and other government sponsors. Research is needed on how to implant new ideas and make change effective. America does a good job of transferring techniques from one generation to another, but it does a poor job of transferring the human relations skill needed to put technical skills into effect. Walton raised a good question when she asked to what extent American education is increasing students' motivation to bring about change. Are we instilling in foreign graduate students a sense of public service and of responsibility for effecting change? It is hoped that American universities are turning out people who will return home with a pioneering spirit, but this assumption warrants study.

Finally, there is the question of how to bring about action. It would be desirable for this colloquium to offer suggestions for action—ideas that can, in fact, be carried out.

Remarks by Homer D. Higbee

Barbara J. Walton's paper has suggested some interesting and important areas for research, but Americans have come to a new plateau, another watershed, in our efforts to offer education to foreign students and some new questions are in order. It is important to find the money to carry out exchanges, but tighter university budgets may be a healthy development. While affluence has permitted universities, foundations, and government to avoid setting priorities, now, with less money, they are being forced to choose with care what is important.

In examining priorities, it is necessary to look at the long-standing, traditional interests of universities—interests that have not previously been taken into account in efforts for foreign students. It is important to recall that universities are centers for the generation of knowledge, as distinct from the diffusion of knowledge; in exchange activities Americans have overemphasized the "diffusion of knowledge" function and underemphasized the "generation of knowledge" function. The United States spent more money than necessary to put a man on the moon, be-

cause of its ignorance of relevant research done abroad. American universities today may not be in the real mainstream of the generation of knowledge. If they are letting themselves become educationally isolated, this may have implications for the selection of foreign graduate and postdoctoral students. Foreign scholars should be chosen with care to make sure that American institutions share in the worldwide generation of knowledge. Moreover, American institutions have taken foreign students, trained them, and sent them home to diffuse knowledge, but they may not have sent them home to generate new knowledge. In admitting foreign graduates, universities should be concerned about getting them to work with Americans to create new knowledge. Consideration should be given also to ways in which foreign graduate students may provide useful links between American and foreign universities that will enhance the communication of knowledge between institutions here and abroad. It is important not to disregard the foreign policy implications of exchange programs; more attention must be paid to their educational implications.

Presentation on AACRAO-AID Participant Selection and Placement Study

Prior to discussion by colloquium participants of Walton's paper and of panelists' presentations, Clyde Vroman, director of admissions at the University of Michigan, briefly described progress made to date in carrying out the AACRAO-AID Participant Selection and Placement Study, referred to in Walton's paper.

In June 1964, the Office of International Training of the Agency for International Development (AID) contracted with the American Association of Collegiate Registrars and Admissions Officers (AACRAO) to provide credential analyst and other professional services designed to improve the selection, admission, and placement of AID participants (foreign students sponsored by AID) for study in American academic institutions. In May 1966, assistance was also requested on the use of tests by AID missions overseas for screening participants to be trained in academic programs in the United States. After a year of planning, a comprehensive study of at least 1,000 participants was designed and launched in June 1967. It was to be carried out over enough years (1)

to identify and validate appropriate uses of tests in the selection and placement of AID participants and (2) to provide a thorough foundation of facts and outcomes on which to base recommendations for improvement in the entire participant selection and placement process. It is expected that the study will also make a major contribution to the processes of admission and placement of other foreign students who enter American colleges and universities each year.

It was decided initially to seek answers to the following questions.

1. What are the characteristics of participants?

2. What are the participants' command of languages, particularly English?

3. Can American standardized tests of English proficiency and scholastic aptitude be used with advantage by the AID missions in the selection of participants, by AID in Washington in their placement, and by American institutions in educating the participants?

After a summer's study of processes, it was clear that the selection and placement of AID participants involves three distinct operations, each carried out in isolation from the others: the AID mission selects the participant: AID in Washington places him; and the American university educates him. It was decided therefore to add the following questions.

4. How can the methods of participant selection and placement be improved?

5. How successfully do participants accomplish their training objectives in the United States?

6. What benefits would accrue from appropriate follow-up studies of participants?

7. To what extent can standards and criteria be prescribed or recommended for decision making with respect to the selection, qualifications, and placement of participants?

In the past year, three additional questions have been added to the seven listed above.

8. What are the nature and extent of academic deficiencies of participants in educational level, subject-matter background, and English, as revealed through the courses required of the participants by the American universities and colleges?

9. What proportion of the participants is able to carry successfully from the beginning of their enrollments in American universities and

colleges, full course loads in the programs requested by the missions?

Data gathered are being coded and transferred to six punch cards. Some computations have already been run off, and it is hoped that this work can be completed in the summer of 1970. Findings will be prepared in the fall, and a national invitational conference will be held on December 8 and 9, 1970, to review and consider results and plan the next steps.

Five major forms have been developed for use in carrying out the study. These include:

1. *Participant questionnaire.* This has been sent to 1,142 students (of these over 200 come from Vietnam and the balance from 41 countries). Students complete the questionnaire on arrival in the United States.

2. *Bio-data.* The regular AID bio-data form contains information furnished by the AID mission.

3. *Test scores.* Scores are recorded for each participant on these tests: (1) the American Language Institute of Georgetown University (ALIGU) English proficiency test, which is administered first abroad, again following arrival, and a third time at the end of any English training given at ALIGU prior to enrollment in a United States institution; (2) the Test of English as a Foreign Language (TOEFL) of the College Board; and (3) either the Scholastic Aptitude Test (SAT) of the College Board in the case of undergraduates or the Graduate Record Examination (GRE) in the case of graduates.

4. *Credential analysis worksheet.* Twenty credential analysts have each worked two weeks in Washington in the summers to analyze students' dossiers as a basis for recommending placements at the undergraduate or graduate level. Final decisions are taken by the admitting universities. Approximately 60 percent of all participants are at the graduate level.

5. *Campus participant questionnaire.* Campus representatives of AACRAO have been asked to complete a two-page questionnaire at the conclusion of the first year of each participant's study program covering aspects of the university's admissions and placement actions and the student's academic work.

In addition, transcripts are obtained for each participant. Department heads' evaluations are also solicited in the case of graduate students.

Since the first wave of participants covered in the study was admitted

in fall 1967, some participants have already completed their third year at a United States institution. A good bit of data, therefore, is already available. Among results already tabulated are findings on participants' English-language proficiency. These suggest:

1. That the English proficiency of AID participants is not markedly different from other foreign applicants taking TOEFL (34,000 students): a majority understood sufficient English for full-time study, but a significant minority appeared to need a period of full-time English training before beginning academic study.

2. That there is a correlation of .84 between scores on the ALIGU and TOEFL tests. (Study directors are developing equivalency tables between ALIGU and TOEFL test scores. Since evidence of proficiency in English is increasingly required—some institutions require a particular test and others accept results from any test they consider valid—the equivalency tables will be made generally available to United States institutions.)

Preliminary findings also suggest that the development-related criteria used by AID in selecting participants are different from criteria used by others and that students lacking proficiency in English can make up for these deficiencies and can do well academically if they have intellectual ability.

Colloquium Discussion

Comments by participants in the opening sessions of the colloquium are summarized below.

A New Frame of Reference

A speaker expressed concern that discussion was focusing on the problems of the past, when the frame of reference is really different. It is important to try to recognize the elements of this new frame of reference. Research to date has been largely focused on attitudes and values. There has been too little concern with developing empirical evidence about exchange. Hard research is needed now, not because it is "nice" but because it is necessary to assure continuation of international education programs. The situation is vastly different from what it was five years ago. Who gets admitted to institutions of higher learning is in-

creasingly a matter of public policy—and a matter for public justification. With rising claims in our society for access to higher education and greater adoption of open admissions policies, it will be increasingly necessary to defend publicly who is admitted to academic institutions, why they are admitted, and what aid they receive. It will be necessary to defend using places and resources for foreign students. Hard data are needed on (1) how to validate the claims of different student clienteles —minority/poverty students or foreign students—for access to university places and funds; (2) how to distribute available resources among different clienteles, including the foreign graduate student clientele; and (3) how to gauge the foreign graduate student candidate pool, with reference to such matters as students' social and economic status, academic qualifications in relation to the qualifications of students remaining in the home country, and scholarly and professional interests which lead them to seek American training, along with such questions as the effects on the candidate pool of United States government-sponsored programs and the effects of differentials in available aid according to field of study or department. At the colloquium on the foreign graduate student held at Wingspread in March 1967,[3] it was suggested that there is need for a certain "critical mass" of foreign students at any university in order to assure foreign students a good experience. Research is needed on this. These are the kinds of things on which evidence is needed to enable institutions, foundations, and government to make sound decisions and to justify these decisions.

A panelist concurred that the decision about why universities are admitting foreign students is the single biggest policy decision to be made. Most research to date has been concerned with the outcomes of the international educational exchange process. Today universities should abandon such considerations and concern themselves exclusively with the question of what benefits they derive from having foreign students—especially insofar as doctoral and postdoctoral students are concerned. This question should be the starting point for all new research.

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3. The papers from this colloquium were published as *University, Government, and the Foreign Graduate Student*. New York: College Entrance Examination Board, 1969, 57 pp.

One new factor is the variety of demands on the time of administrators and faculty these days; university personnel have less time for foreign students. Another new aspect is the universal growth of tariff walls on out-of-state students. Other kinds of tariff walls can be expected in respect to foreign students. Also, American industry is expanding its training programs for foreign students. This may require universities to justify academic education in new ways.

Growing opposition to universities as centers for research may affect the role of universities as "generators of knowledge" (see page 14). There may be a shift in support for research away from universities to specialized research centers—just as it may be increasingly difficult to obtain support for highest-level foreign students. Changes are occurring that will affect many things that were until now taken for granted. Exchange activities will have to be justified according to current terms of accountability.

Foreign students are attracted to particular departments in direct relationship to the supply of money available in those departments. Engineering, for example, attracts more foreign students than sociology or English literature. Study findings show that the departments enrolling the highest percentages of foreign students are those in which the highest percentages of American students receive some financial aid: for example, engineering. Management also ranks high. The natural and social sciences rank higher than the humanities. There is growing disillusion in the United States about the oversupply of Ph.D.s in fields where fellowship aid has been abundant. American students may be increasingly deterred from entering these fields. Yet the facilities and faculties will continue to exist, and if resources are available, foreign students will continue to apply and to occupy places. Second, even though a new clientele—minority/poverty students—is making demands on university resources, these students are concentrating in the social sciences and are not entering fields, like engineering and the natural sciences, for which money is available. One must conclude that while many factors militate against future financial aid to foreign students, there may be exceptions, especially in certain fields.

Another participant observed that there cannot be an oversupply of Ph.D.s in America. What does exist is an oversupply of people whose attitudes do not fit the needs of American society. Too many Ph.D.s

would like to spend their whole life in a research post—preferably in a name-endowed chair in a prestigious university.

There is growing need to justify the use of university places for foreign students. A recent conference of foreign student advisers in California concluded that it may now be necessary to develop a rationale for the admission of foreign students that is different from the traditional argument that international education is "part of the historical process" or useful in terms of "cultural broadening." Universities must establish that foreign students are vital contributors, both here and on return home. It is possible that undergraduate admissions by the University of California may be limited to 5 percent and that freshmen and sophomore enrollments may be eliminated altogether. Great student pressures for admission are resulting in an acute need for a philosophical justification for the admission of foreign students.

Another item warranting research is the effect of tuition embargoes on foreign admissions. The University of California is establishing a tuition fee for out-of-state students of $1,800. These kinds of embargoes are especially difficult for the relative few foreign students who come to the United States from lower social and economic levels, including especially self-sponsored students. (Yet government-sponsored students may be party or political hacks—less desirable than self-sponsored students.)

Another new factor is the demand for university places from foreign immigrants who have already been in the United States for several years. In California, foreigners can obtain a free education if they have been state residents for a year. Research may be needed to determine whether applications from foreign immigrants are presenting a problem.

Two years ago the University of Minnesota presented a budgetary request to the state legislature which tried to show costs respectively of lower division, upper division, and professional-level study programs. The questions legislators asked at the time suggest that they may in future begin to tie allocations of state resources to levels of study. This means that institutions may increasingly have to justify uses of funds at particular levels. It will become increasingly important for institutions to develop a well-defined policy statement of institutional goals in admitting foreign students that fits the institution's general objectives.

The concluding speaker on this topic observed that graduate school

intakes supported by federal funds have been reduced by more than 60 percent in the last four years. Many graduate schools are so hard-pressed financially they are having to decide between using available aid for American minority/poverty students or for foreign students—in effect, black Americans versus black Africans. This is exactly the type of competition that should not occur, but it is happening. Perhaps this colloquium should go on record as expressing concern over the effect on foreign student intakes of reduced federal fellowship funds.

Carrying Out Exchange Programs

At different times in the initial sessions, participants commented on various aspects of foreign graduate student exchanges.

A panelist observed with respect to the relevance of American curriculums for foreign students that the word "relevance" has almost supplanted the word "mother" in popularity and esteem. In a recent study, 5,000 faculty members in 12 disciplines at various universities and a large number of student Ph.D. candidates in the same disciplines at the same universities were asked to what extent they believed that the subject matter of their teaching was "highly relevant" to the modern situation. In the field of chemistry 90 percent of the faculty members regarded their discipline as "highly relevant"—the highest percentage registered. The lowest percentage of faculty to consider their discipline "highly relevant" was philosophy. But student responses were almost exactly opposite: the lowest numbers of students who considered their studies "highly relevant" were in chemistry and physics. These findings are especially interesting in that many of the faculty members replying to the questionnaire were under 30. It is also interesting to speculate about the kinds of answers foreign students might have given. It is probable that foreign students—who have come a long way to study in the United States and who respect their American professors—would more nearly agree with the faculty than with the American students.

As a panelist had suggested, many foreign graduate students are attracted to United States universities by offers of teaching or laboratory assistantships. They do not realize that the money offered will not go far in the United States. Second, it is impossible to say what kinds of curriculums are "relevant" for all disciplines and all foreign countries. Students who have studied here and returned home 10 years ago have

useful experience and might be tapped in recruiting new waves of foreign students. Third, there is need to improve our human relations skills. The "American way" is not the only way to do things in the world; many foreign students resent American feelings of superiority.

A panelist observed that there is great wastage in the processing of foreign student applications owing to the failure of many applicants actually to register. At Northwestern University, the percentage of foreigners in the applicant pool has increased from 16 to 19 to 21 percent in the last three years, but the percentage of foreign applicants who actually register is fairly low. At one medium-size private university, only 5.5 percent of foreign student applicants actually enrolled; the year before that, enrollments were only 3.7 percent of applicants. At Northwestern, the percentage of foreign students registering is closer to 18 percent, but this is still substantially lower than the percentage for American students. (Northwestern had 1,083 foreign applicants for this year's class but only 200 actual registrants.) Manpower is wasted in processing applications of students who do not come.

The view that America is producing too many Ph.D.s in certain fields is controversial and has been overstated. But some disciplines are beginning to recognize that the training of United States students has been too narrow and too specialized. This has rendered graduates psychologically and otherwise unfit for employment. Many universities are encouraging departments to rethink the substance of their education and to provide better education for all students. A related problem afflicting graduate education is the tendency of professors to try to complete students' education rather than encourage students to continue to learn for themselves after graduation. Improvements in American graduate education will benefit foreign students as well as Americans.

Universities should also be concerned with foreign students' home lives—whether their spouses and families have accompanied them and how well they are being treated. Social experiences may be remembered long after classwork is forgotten. Third, many American universities are adopting interdisciplinary approaches to certain problems, especially the problem of environmental quality. American institutions have a great opportunity to help foreigners in areas, like this, where the problems are universal. They should try to interest foreign graduates

in efforts to create new courses and develop new kinds of research that cut across disciplines. Another participant concurred that global problems that affect all mankind are "relevant," not only to American students but to foreign students. Ecology (environment) is one such problem; so are the areas of conflict resolution, economic development problems, and education and educational techniques as applied to various needs. A number of other fields of study have international significance.

(But, one speaker warned, many of the curricular changes being effected reflect student concerns and are short-term rather than long-term; for example, teaching about chemistry is modified to deal with the role of chemicals in environmental pollution. Such changes are being made very fast. Foreign students coming to the United States to study what American institutions are known to offer may find that curriculums are being changed to meet immediate American problems and are less—not more—relevant than previous curriculums. This may warrant study. Another participant added that the information available abroad on United States program offerings is often inadequate and out-of-date. If universities are changing their curriculums rapidly, they have an obligation to make these changes known abroad.)

With reference to foreign students' mastery of English, it is obvious that students' test scores will rise after a period here of immersion in English; second, it is probable that a student with poor command of English will do better if he is studying in the hard sciences than he would if he were in philosophy or history.

As for the view expressed by one panelist—that American institutions should seek to instill some social awareness in foreign students—it seems that American institutions are unable, and will continue to be unable, to do this, owing to lack of concern for our own people and our own country.

A new phenomenon is the rise in applications from foreign students who come to the United States and then apply locally, rather than from abroad. The University of Minnesota, for example, sometimes seems to be running a welfare operation. Perhaps foreign student applicants should be required to deposit sufficient funds to cover all their expenses in the first year of study. As for assessing the "relevance" of United States education for students coming here—a kind of "international

bussing"—American professors can play a role in helping students to determine which courses will be useful to them.

Areas of Concern for Research and Action

One speaker observed that universities should be concerned mainly with "highest level" education—doctoral and postdoctoral—of foreign students. Research studies should focus on foreign advanced graduate students and postdoctoral students. Attention might be given also to exchanges of faculty. Methodologically speaking, it will also be necessary to agree on terminology—what a "candidate" is, what a "student" is, and what constitutes "admissions." (Admissions at the graduate level are often carried out by individual departments.) New and different secretarial procedures and functions will be needed to reach the new kinds of university personnel increasingly involved in foreign student admissions decisions.

The colloquium has focused largely on Ph.D. candidates (and postdoctoral students). But in 1968-1969, 24,000 of the 54,000 foreign graduate students at American institutions were studying for an M.A. These students also warrant attention.

Research may also be needed on American students who have studied abroad and returned home. Many American students would like to study abroad but lack sufficient funds. Research could justify expenditures for this purpose.

4. Major Issues and Problems

Major issues and problems in foreign graduate student exchanges warranting research and action were the subject of speeches by Francis X. Sutton, deputy vice president of The Ford Foundation, and the Honorable John Richardson Jr., Assistant Secretary of State for Educational and Cultural Affairs; a presentation by George H. Huganir Jr. of his background paper; comments by panelists on Huganir's paper; and colloquium discussion. Presentations and comments are summarized below.

Presentation by Francis X. Sutton

Although The Ford Foundation has not been so heavily involved as universities, the federal government, and some private organizations in foreign graduate student exchanges, it may have some useful—and different—perspectives.

It is now apparent that the fundamentals that have guided us are changing in basic ways. We American educators need to understand these changes in order to reshape policies. We can make better policies by having better data to guide us. It is dangerously bureaucratic to think that we can master the flow of international exchanges only by exercising tight controls. We can also act confidently if we have a better understanding of the facts of what is happening. Americans tend to describe everything in terms of "crisis." We are not yet in a state of crisis with respect to foreign graduate student exchanges, but many fundamental assumptions on which these programs have been based are changing, and we need to change our practices to cope with these.

One fundamental assumption has been that the United States has contributed to the development of foreign countries by increasing their supply of highly trained manpower and by helping to develop their institutions. Foundations and the United States government have largely focused on foreign institution building, with some ancillary training of university staff. They may have carried this policy too far, focused too narrowly on a limited number of foreign universities, and failed to give enough attention to the total foreign demand for graduate education. The tendency has been to go university-by-university—to

do something neat and clean. Americans have not typically had the research resources or the bureaucratic equipment even to keep track of such major processes as, for example, Africanization of the staffs of African universities, but have tended to emphasize the building of particular foreign universities. We have also tended, in receiving foreign students, to focus on graduate students. This is an unexceptionable policy.

A second set of fundamental assumptions, not directly related to foreign assistance policies, has been related to the interests of United States universities in receiving foreign students. The general view has been that it is a "good thing" to have some foreign students on American campuses. This view is not unique to the United States. Many European universities share it—and are equally silent about the ultimate rationale for receiving foreign students. (A few continental universities are beginning to be concerned about the numbers of foreign students they are educating, but this is the exception rather than the rule.) Foreign student exchanges at European universities are generally seen positively and are not controlled or even overseen by European governments. In fact, there are no coherent national policies in Europe on the numbers or types of foreign students to be admitted.

Two other factors have some bearing on our assumptions about receiving foreign students. Certainly, United States government immigration policy has been an autonomous variable with some effects outside normal considerations; it may be a factor with some bearing on our problems. Second, educational exchanges have been seen since World War II as having importance in very broad terms—in terms of political and international understanding. In these terms, exchanges have also been viewed as a "good thing."

What are the new elements today?

First, the situation in developing countries is changing rapidly. Ten years ago, the problem of aid to developing countries was seen as being simply to supply more, better educated people. It is no longer seen that way. In many developing countries there is the problem of "educational glut"—an oversupply of overtrained or wrongly trained people. Even in Africa countries are moving toward this situation. There has been very rapid change in Africa, and 10 years from now "educational glut" will be found at all levels in many countries of Africa. It is clear

that action must be taken—action far more subtle and difficult than simply providing for quantitative improvements in the educational system. It will be necessary to identify points of input better, plan much more closely, use institutional resources differently, and, in all ways, be more delicate and discriminating.

In the course of emergence of this change, we Americans have had a fit of national conscience about the brain drain. Everyone has worried about the loss of educated people to developing countries. We are now in a new period, characterized by more complicated and sophisticated views. We speak today of the "migration of international talent" and see both good and bad things in the situation.

If it is true that there are likely to be grievous problems in the future of underemployment of educated persons, then there will inevitably be tremendous pressure for the movement of educated people from the poorer countries to more advanced countries. This kind of migration is likely to be a typical feature of the educational scene for the next generation. Our perspective toward students from developing countries is changing fundamentally in this regard.

The situation has also changed in the United States. It may well be true that America will experience a "glut" of Ph.D.s This is a judgment that needs to be researched. Projections should be made and scrutinized; both of Ph.D. production and of probable employment opportunities at appropriate levels. Even allowing for a gradual trend to require the Ph.D. for teaching at junior colleges, we may find it difficult to employ all the new Ph.D.s. If so, this will have implications for policy governing the training of foreign graduate students. We shall be faced with a continuing, growing influx of foreign graduate students concurrently with a tighter employment market for American Ph.D.s.

No one has been very explicit about the costs of educating foreign graduate students, but people concerned with these students are now being pressed to consider costs. The costs of graduate education generally are rising. There is also the factor of costs involved in maintaining graduate departments and programs that are not sufficiently populated by United States students. The scale of graduate schools is being reconsidered, with such institutions as Harvard and Princeton already announcing sharp reductions. This generally tighter situation will also have implications for the admission of foreign graduate students.

There is also some concern now to re-examine the whole question of the meaning of exchanges for America's relations with other countries. Americans used to have great confidence in the moral effects of our universities on foreign students. These now seem more dubious. Some African students training here for teaching positions at African universities have been so radicalized as to be rendered ineffectual in their home environment. There is unquestionably some concern abroad about whether foreign students at American institutions are feeling the influence of the New Left. Such concern is important, because America seeks continuing access to universities abroad, for research and other purposes; but American access is somewhat dependent on reciprocity in relationships. We are facing new concerns and new motivations.

As fundamental changes occur, the problems of policy formulation become more difficult. Yet new guidelines may emerge from considerations of the kinds described above.

In the past aid considerations were separated from cultural considerations, but in future our interests in development and our cultural interests must be more closely tied. We must think in terms of technical and professional "cooperation" rather than technical "assistance." There must be a fusion of considerations, different from the past. For example, much more attention must be paid to the situations to which foreign students return following study in the United States. It is not simply a matter of economics. Many well-educated students would like to return home and pursue serious professional careers as scholars or scientists. But they find that they cannot. There is no one to work with in a serious, intellectual way. Naturally they do not want to persist in such situations if they are serious scholars. This is a grievous problem in many parts of the world, but it can be remedied in part by American aid. American foundations, for example, have supported the Trieste Center for Theoretical Physics. Efforts are also being made to strengthen particular foreign universities in ways that will enable them to hold scientists and scholars. The University at Islamabad, Pakistan, and the Centers for Advanced Studies at various Indian universities are examples of such institutions. But this is an expensive task. To educate an Indian student at a Center for Advanced Study is 10 times more costly than the normal cost of university education in India. This scale of expenditure is out of line with the budgets of poor countries. They cannot bear the

costs themselves and should be aided in this effort. To educate a graduate student costs six times as much as to educate a first-year undergraduate. This is the kind of excessive cost that should be borne by the richer nations. Poor countries should be relieved of the expense of "highest" education.

A transnational, integrated approach is needed in education—an approach that considers what should be done abroad, what America should do, and what should happen afterward. American universities, which have until now received foreign students on the basis of intellectual considerations only, are moving in this direction. A dialectic may be needed in future between American universities and the government; universities can pursue the transnational line, while government properly continues to represent the national interest.

Nor has enough attention been paid to the extent of American university assistance to foreign development. University investments never turn up in Development Assistance Committee figures (except in relation to AID participant training). Universities should estimate and publicize the contributions they have made in educating foreign graduate students.

It is difficult in America to achieve a serious process of policy development. Difficulties affecting the development of a coordinated policy in international education include the fact that the government is composed of different agencies, problems in relating the governmental and private sectors, difficulties in deciding what is a reasonable focus for policy, and the fact that while operating organizations may be substantively knowledgeable, they are sometimes overly committed to particular patterns of activity and unable to think freshly about ways of operating or of relating to others. Too often the private sector has looked to the Bureau for Educational and Cultural Affairs of the Department of State to formulate policy and has itself contributed little.

Several new elements bear watching, including the proposed formation of an International Development Institute, as recommended by the Peterson Commission.[1] There is considerable resistance to the view that

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1. *U. S. Foreign Assistance in the Seventies: A New Approach*. Report to the President from the Task Force on International Development, Rudolf Peterson, chairman, March 4, 1970. Reprint available from Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 39 pp.

technical assistance should be separated from capital aid, but great educational value would be derived from such separation. It is important to try to see solutions to problems outside the context of particular projects. Major movements of manpower and educational need can be influenced by natural processes—not by specific projects alone. If an agency is created that is genuinely a technical cooperation agency, it may lead to new kinds of thinking about educational policy, especially insofar as the uses of American universities to train foreign graduate students are concerned.

Another new development to watch is the forthcoming Unesco study, under the chairmanship of Edgar Faure, of relationships around the world between educational policy and national development. Publication of the study may stimulate new kinds of concerns and action.

In short, new policies are needed that rest on considerable knowledge and analysis of situations and the world. There must be a clear understanding of, for example, the need in Tunisia for trained people or of Indian manpower needs. This requires a continuing flow of current information on situations around the world.

The concern of this colloquium with better research is inextricably linked with concern for better policies. Hopefully, by improving our understanding of situations we can work toward construction of a mechanism that will formulate better policies.

Presentation by George H. Huganir Jr.

In presenting highlights from his background paper "The Foreign Graduate Student: An Opportunity for Higher Education in America,"[2] Huganir made these points:

Data from the Office of Scientific Personnel of the National Science Foundation indicate that between 1960 and 1966, 11,885 foreign students obtained doctorates from United States universities. (In the previous 30-year period, from 1920 through 1959, the figure was also about 12,000.) It would be interesting to see what graduates in the sixties are now doing. Of the approximately 12,000 foreign students receiving Ph.D.s after 1960, 19.2 percent were Indians, 12.6 percent came from

2. Huganir's paper appears as an Appendix in the back of this book.

the Near East, 12.3 percent were from North and Central Europe, 10 percent were from Nationalist China, 16.4 percent were from Canada, and 1.7 percent were Africans. This group could be studied to determine whether America drained them off, whether they are working at home, or whether they participate in the international system. Data on these graduates might show who, in the trade-off process, won.

In attempting to look at the true costs of educating foreign graduates, Huganir looked at both graduate and professional students, partly because many graduate programs today are theoretical, basic, and practical—all at the same time. (New phenomena include the M.D./Ph.D. who specializes in certain kinds of medical research or the law school student with a doctoral degree from Edinburgh who teaches forensic medicine in psychiatry.) It is increasingly difficult to distinguish between the graduate student in the traditional sense and the so-called "professional student." Most operating heads look at the Ph.D. product as a phenomenon that remains largely in the academic world, yet a Ph.D. in statistics may be working in mathematics or business administration or any one of a number of different sectors of the economy.

It is extremely difficult to try to prove the costs of graduate education. It cannot be done with the kinds of data usually available for industrial cost analysis. But today, in 1970, politicians want to know what graduate education costs. For example, they want to know what it costs to train an M.D. In Philadelphia, for example, there would be five different estimates, depending on the institutional settings. All would be honest, but they would vary. Some politicians feel that because it cost more to educate a particular doctor, he is necessarily superior to another. This is not so. What is needed is to prove costs within institutional settings, in relation to goal environments and public demands. True estimates of costs will take into account such factors as the differences between a teaching hospital in a black ghetto and a wealthy, largely white medical school in a country setting—and the differences in the ways in which each perceives its role.

Many politicians consider that since they appropriate funds for an institution, applicants from their state or their district should have priority. At Temple University, administrators regard graduate students from New Jersey almost as foreigners because the university receives no financial support for out-of-state graduates. Intellectuals, scientists,

and administrators face a hard task in defining carefully for political leaders, who are increasingly concerned about general rises in the cost of education, the true costs.

The paper makes one reference to program budgeting in terms of cost effectiveness. But one cannot "prove" in terms of cost effectiveness whether it is more valuable to support an Australian professor in a science lab than it is to fund a professor in the graduate division of the College of Music. The proving of costs involves social values. Some government agencies insist that universities also support the programs government is funding, but Temple University has consistently tried to provide support for the humanities despite governmental emphases on the hard sciences. These kinds of decisions can be made internally, but in a time of declining aid costs must be defined in awareness of political imperatives.

As for the supposed "glut" of American-trained foreign Ph.D.s, there has been little attempt to estimate occupational groupings in the years ahead. Nor have the needs for paraprofessionals been estimated. Asian countries will have a glut of certain types of highly specialized scientific personnel if there are not enough supporting technicians in a pyramidal sense. An American-educated Iranian dentist who wants to do research must return home to a frustrating situation without sufficient paraprofessionals to undergird his career. The brain drain issue is loaded with value implications. Perhaps in future we should think less about nationality (who owns whom) and more in terms of international sharing.

Another new development has been the rising demands on urban universities by the public and private sectors. Government may seek university aid in strengthening military educational institutions; similarly, industries increasingly request universities to offer particular courses. These new demands may affect the character of graduate student populations, including foreign graduates. Whatever rationale universities establish for responding to rising public and private demands, these demands will inevitably affect their ability to receive, fund, and educate foreign graduates.

American blacks are also making demands on curriculums and resources. As American citizens, they have an inherent right to do so. But foreign graduate students are hesitant to demand that the curriculum be

relevant, that they receive counseling, or that universities respond in other ways to their special needs.

Panel Discussion

Panelists commenting on Huganir's paper included Robert L. Fischelis, fellowship officer of the Rockefeller Foundation; Maurice Harari, vice president of Education and World Affairs; Gloria Ilic, head of the Division of Foreign Student Placement; John L. Landgraf, executive secretary of the Committee on International Exchange of Persons, Conference Board of Associated Research Councils, National Academy of Sciences; and Alistair W. McCrone, associate dean of the Graduate School of Arts and Sciences, New York University.

Remarks by Robert L. Fischelis

Huganir's paper has emphasized the need for closer relationships between the purposes for which foreign students are trained and resources available. He suggests that "in our research and study we ought to assess the purposes of other social institutions whose support we require if educational exchange is to be mutually beneficial." It is noteworthy that Fischelis personally visited 21 of the 27 graduate schools represented at this colloquium in connection with the Rockefeller Foundation's fellowship program.

In the twenties and thirties, the foundation concentrated on providing postdoctoral fellowships. In the past 15 years it has shifted its emphasis to the developing countries and has provided scholarships to train persons for specific purposes. This shift was regarded as a temporary measure to strengthen universities in developing areas; the foundation expected to revert at a later date to its policy of granting postdoctoral fellowships.

The Rockefeller Foundation's programs today focus on equal opportunity in the United States, arts in the United States, the quality of the environment, the conquest of hunger, population control, and university development in developing countries. Most Rockefeller fellowships relate to university development in developing countries, although some are also awarded in connection with "conquest of hunger" program. (Fellowships relating to university development in Asia, Africa, and

Latin America total 400 to 450 at any one time and are a majority of the foundation's $4 million annual scholarship program.) Fellowships generally provide a three-part experience, including United States graduate training, research in the student's home country, and return to the United States for preparation of the dissertation.

Selection today involves much more than simply choosing qualified candidates. It should be concerned with the purposes for which the award and training are to be given and to the future placement of individuals. Rockefeller, for example, chooses only graduate students who have jobs to return to. But admissions procedures at most graduate schools do not operate this way. Department heads and admissions officers are not weighing purposes in choosing among candidates; they merely evaluate credentials. It would be desirable for universities to relate their admissions more closely to the purposes of training.

It is important also to relate the United States academic experience to the student's situation at home. This necessitates knowledge of the home situation, close advising of the student, and concern for his useful employment on return. Over 99 percent of all Rockefeller fellows return to their home country and university. This has occurred not because of contractual or immigration controls but because of students' roots and opportunities. The very few cases of failure to return home have been traced to poor, inadequate, or deliberate advising by United States faculty members. Graduate schools should give more attention to this question.

Policy regarding foreign graduate students should be weighed fully before foreign graduate education becomes a public issue. Already elements of cultural nationalism are apparent. Two state legislatures and various university committees are moving to restrict the numbers of foreign nationals in particular departments. Quotas are emerging as a new feature relative to foreign student admissions. Universities must determine their own priorities and develop rationales and justifications for the admission of foreign graduate students before the initiative is taken from them. It is hoped that state provincialism will not grow too fast, but there are disturbing signs.

Another disturbing development has been the recent shift in public policy governing the return home of foreign students. A new law permits waiver of the requirement that privately sponsored foreign stu-

dents return home for at least two years before applying for United States immigrant status. The Secretary of State may develop a list of skills in short supply abroad that could be used as a basis for rendering students ineligible to remain in the United States. This list should take cognizance of the program purposes of private organizations. Perhaps universities can formulate policies and priorities that will affect State Department action in this area.

Another area for action is the practice of admitting students for the wrong reasons—to work in laboratories or to serve as teaching assistants or section leaders for undergraduate courses. The fact that funds exist to fill these posts is not sufficient reason for bringing foreign students, whose admission should be based instead on their qualifications and the purposes of their training.

A conference to evaluate the Fulbright-Hays Program held several years ago attached great importance to evaluation of exchange programs. The Rockefeller Foundation is still excited about the need for evaluation. Foundations gratefully receive data and policy recommendations from American graduate institutions. They would welcome carefully researched statements of policies and priorities in international education from United States universities.

Remarks by Maurice Harari

The foreign student business is a $1 billion a year industry. (This estimate takes into account costs incurred at both ends in educating graduates and undergraduates.) The present colloquium is concerned with a $500 million a year industry—the cost of educating foreign students at American institutions, an activity equal to 20 or 30 percent of total foreign student traffic in the world. (One out of every four students studying outside their home country is enrolled at a United States institution.) American education is also the single most important and the richest strand of education, because graduates of United States institutions are the most effective agents for change on return to their home countries.

There is urgent need today for:

1. an institutional rationale in admitting and training foreign students;
2. assuring quality (relevance) in the American curriculum; and
3. relating foreign student training to development.

These are the areas on which research should concentrate.

As Springer suggested in his introduction, two kinds of research are needed: high-level, policy-oriented research and research on how to do exchanges better. We American educators and planners must be concerned also with the development of action programs. We need facts and assessments of these facts on which to base our policies. There is a general feeling that bringing foreign students to America is a "good thing," but assessment and evaluation are needed to make sure that we are making the best possible use of a $500 million industry.

Unless universities develop an institutional rationale internally they will not obtain the administrative and faculty commitment and leadership needed for full implementation of the exchange effort. A report by the Carnegie Commission has concluded that although many American colleges and universities have created supportive organizational structures to deal with foreign students, they have not as yet faced up to the fundamental questions of the purpose and role of foreign students in our institutions of higher learning. We must ask why universities are admitting foreign students, whom they are admitting, and who makes admissions decisions. (Often the decision-making process is diffused among the admissions office, the dean's office, and a graduate department.) An evaluation of what is happening is needed as a basis for formulating policy options.

The need to develop relevant, high-quality curriculum is discussed repeatedly but inadequately. A key question is whether curriculum changes suited to the need of foreign students would disturb the desirable balance of American education. Some suggest that modifying the curriculum to meet foreign students' needs would be denying the American student. While it is probably not desirable to develop special sets of courses for foreign students, it is not desirable either to "stand pat" on present curriculum and simply wait for it to universalize itself. A recent study[3] of the role in world affairs of professional schools in eight fields showed that universalization of the curriculum is still underdeveloped; some progress has been made but this is not advanced. Yet nothing less than field-by-field universalization of curriculum will work. This

3. *The Professional School and World Affairs.* New York: Education and World Affairs, 1967. In 5 vols.: *1 Business Administration and Public Administration, 2 Agriculture and Engneering, 3 Medicine and Public Health, 4 Education, 5 Law.*

goal must receive continuous action, effort, and attention. A universal curriculum is very important—for Americans as well as foreign students—if we are truly concerned with universal knowledge and not simply particular problems overseas. Faculty members must be exposed to what is happening elsewhere if they are to introduce comparative techniques. Otherwise, graduate students, who themselves become faculty, will never change.

As for training as a facet of development, we Americans tend to think of development as something taking place abroad. The educational establishment has been divided; some have looked out and some have looked in. But true universalization of the curriculum would involve concern for some domestic issues—for example, the quality of the environment—because these are relevant abroad as well as here.

Student counseling services are important, especially abroad. Generally, there has not been sufficient concern with the total cycle of exchanges. We have failed sufficiently to inform admissions officers at 2,000 American institutions of higher learning about the development needs of foreign countries. Lacking an overview of needs, many simply admit foreign students who apply as a result of encouragement from family and friends previously enrolled. The recent Education and World Affairs paper on modernization and migration of talent concludes that migration controls are less important than being informed about overseas manpower requirements and needed skills. Selection criteria and training should be related to overseas needs and employment opportunities. This takes planning and hard work, but it is the real payoff of American efforts to education foreign students. It need not occur in all cases—AID's practices are at one pole and a philosophy of total free movement at the other—but there are many in-between cases in which data on key problems overseas would be useful to admissions decisions.

Innovation is needed in admissions and in curriculum. Collaboration and cooperation are also needed. Interinstitutional arrangements must be developed between universities here and abroad, between the governmental and private sectors, and among organizations in this field. The key to the situation is joint problem-identification with counterparts overseas. Currently American universities decide what is best for foreign students without such consultation. Americans must proceed in consultation with those who are responsible abroad. Only then can we

aspire to downgrade ourselves from a position of intellectual arrogance —from the belief that we know everything about curriculum.

Remarks by Gloria Ilic

The colloquium has identified some factors that threaten foreign graduate student enrollments, including reduced federal and private aid, rising university costs, domestic unrest, public scrutiny, and other factors. As universities face these, their main concern may be to see how limited resources should be used for foreign students. Short-term, practical research projects may be needed that will enable universities to justify using limited resources for foreign students. More general evaluations may be necessary and should be continued, but priority should be given to short-term research with short-term goals in mind. Huganir has suggested that it may be possible to "prove" the value of foreign student exchanges in ways that will satisfy public scrutiny, but this task would take 10 years—and we are facing an immediately critical situation.

Barbara Walton's paper indicates that some research has been done on students in particular disciplines and on graduates as distinct from undergraduates. This kind of focus is desirable. It may be desirable also to focus on particular nationalities. For example, according to the 1969 *Open Doors,* 20 percent of the 54,000 foreign graduate students at American institutions were either Chinese or Indian. With the addition of students from three more countries—Canada, Japan, and the United Kingdom—50 percent of the foreign student population would be covered. Twenty countries account for 70 percent of all foreign students. Perhaps research on such questions as university receptivity, whether students are fulfulling their purposes, and related questions could be confined to Chinese and Indian students only. This kind of limited inquiry might yield immediate results.

As has been indicated previously in the colloquium, the relatively few studies of higher education rarely mention foreign graduate students —yet these total at least 5 percent of all graduate student enrollments. A new government publication, *Aspirations, Enrollments and Resources,*[4] gives a good analysis of students' economic backgrounds but

4. Joseph Froomkin, *Aspirations, Enrollments and Resources: The Challenge of Higher Education in the Seventies.* Washington, D.C.: Office of Education, U.S. Department of Health, Education, and Welfare, 1970, 151 pp.

makes no special reference to foreign students. They are not even recognized as being here. It is necessary to do more than passively accept foreign student exchanges as a good thing—we need to prove exchange is valid. And this requires research.

Some possible subjects for short-term research include the following:

1. *Sources of financial support for foreign students.* It is not really known how foreign students are supported. Fifty to 75 percent of the foreign graduate students at United States institutions receive funds from government, university, or private sources; only 25 percent are self-supporting. If foreign graduate students are to continue to constitute 5 or 6 percent of the total graduate student population, there will be 67,000 foreign graduate students in 1971. Even if only half of these are funded from United States sources, they will total 34,000. Where will these students find the needed funds? Researchers should find out from graduate schools and departments how they foresee their problems and resources and what their interests are in giving some priority to foreign students.

2. *A national rationale for admitting foreign students.* Universities must develop their own individual rationales for receiving foreign students. Meanwhile, a group like this colloquium should develop some kind of guideline for universities and others. The last colloquium on foreign graduate students recommended that they constitute 5 to 10 percent of the graduate student population. Is this still a good objective, given reduced resources? Does this colloquium know what position it wants to take on this question? The previous meeting also recommended that 2,000 fellowships, totaling $7 million, be made available to foreign graduate students. A goal of this dimension is today unrealistic. Encouragement should also be given to institutions to develop their own justifications for foreign student enrollments.

3. *Bases for selection in particular departments.* Graduate departments need help in selecting foreign students. Many would welcome information and guidelines on foreign educational opportunities, development needs, and so forth, as a basis for choosing students. We need to know how particular departments arrive at admissions decisions. (For example, Princeton University may reject a candidate at a level and in a field his country does not need.)

4. *Sources of funds for research.* Research costs money. There should

be a task force to identify resources potentially available to carry out research as well as the grass roots constituency, if any, for research.

Remarks by John L. Landgraf

The present financial situation is serious, and it will continue to be. International exchanges will have to take place within this context. Funds were received in the past from organizations that wanted to control the programs they supported. This problem must be dealt with by seeking bits and pieces of support from different sources to carry out desirable activities. To raise funds from different sources requires "packaging" programs. Funding sources that might be involved in any one "package deal" include universities, which should contribute something; foreign universities; private foundations; and United States government agencies.

Many government agencies have international units. There are only four agencies principally concerned, but others might be persuaded to participate. The four major agencies have no coordinated policy regarding international exchange. AID, the National Science Foundation, and the Fulbright Scholarship Program compete among themselves. A critical question is who shall control the program. Universities have become stronger administratively than they used to be, but they are not yet so powerful as a major foundation or a major government agency. Universities should develop their own plans, "package" their proposals, and seek government support for them from a variety of agencies.

An example of a desirable program would be a joint faculty-advanced graduate student program in specific fields, or possibly involving different departments with participants moving back and forth. This kind of program could b written up briefly, with the project proposal showing both the American university commitment and any contribution to be made by overseas universities. In raising funds, it is important to try to count the services United States universities contribute, along with contributions from overseas institutions. Then foundations and government agencies should be approached for the balance of what is needed.

European nations are relatively wealthy. (The Fulbright program accounts for only 5 percent of all exchanges with Europe.) United States universities should develop relationships with European universities and then seek supplementary outside support to make these better.

Although developing countries have limited resources, AID and the Department of State may help compensate universities for what they do for students from developing areas. Eastern Europe presents another, more difficult problem.

Perhaps a peripatetic study group should be formed to consider a given topic in a given year. It need not meet for the entire year but should be longer than a short conference.

It might be desirable to send American graduate students abroad for their dissertation year to work with foreign institutions on problems of international concern. Conversely, we could bring foreign students here for their course work and then send them home to do their dissertations.

Remarks by Alistair W. McCrone

It may not be desirable to tie foreign student admissions too closely to available jobs. Employment conditions change in four years, especially in rapidly developing countries. Second, in considering the impact of foreign students on American students, it is necessary to distinguish between undergraduates and graduates. The problem of double standards also warrants consideration; American students should feel they are being treated fairly.

The "glut" problem has been mentioned. It is a serious matter to train a foreign student here to a high level and then send him home without adequate supportive personnel. The colloquium has been concerned with existing university structures only; perhaps a new substructure is needed to train technologists. Graduate schools might also pay attention to junior colleges and technical schools concerned with training supportive personnel.

As for cultural imperatives, many foreign students feel ties to their homes and families. These should be understood. Another matter that needs understanding is how long foreign students see themselves as "foreigners." McCrone said, one foreign student he knew, who felt he "belonged," resented his ineligibility for the New York State Scholar Incentive program.) If foreign students are accompanied by their families, universities must accept responsibility for seeing that the families benefit from their American experience. This is an important aspect of cultural exchange. It is expensive, but America is a rich na-

tion. We should extend our range and do a number of new things well.

Presentation by the Honorable John Richardson Jr.

The Bureau of Educational and Cultural Affairs of the Department of State (CU) shares certain articles of faith with American universities: It shares the belief that international scholarly exchange is a mechanism for the generation of knowledge that benefits both the United States and other countries. It shares the assumption that educational exchanges are also a mechanism for the diffusion of knowledge, and that America benefits at least as much as it benefits others.

Like universities, CU must be prepared to justify the use of its resources in terms of its understood role and charter—the Fulbright-Hays Act of 1961— and in terms of government's imperfect perceptions of what it should seek to accomplish in this extraordinarily difficult and turbulent time.

CU's framework is also similar to the context in which universities must work, that is, a scarcity of resources and the growing strength of competitive demands. Not only is money increasingly being made available for domestic purposes at the expense of international activities but individual, organizational, and institutional horizons are constricting as a result of the turmoil and the information explosion that surround us. As one is forced to filter out more and more in order to pay attention to anything, one tends to put aside everything that is not immediate and urgent. It becomes increasingly difficult "to look over into the next lot."

Other concerns the Bureau shares with universities include concern about the alleged "glut" of degree-holders abroad. It also suffers from increasing skepticism in some quarters about the efficacy of interventions for public purposes by institutions in one country in complex situations in other societies.

These are some of the pressures and problems that have contributed to a decline of 41 percent in CU's budget in the past four years. Other contributing factors have been the overwhelming preoccupation of the President and Secretary of State with international and domestic crises and the frequent turnover of leadership in the Bureau. (There have been eight Assistant Secretaries in the period 1961 to 1969.) Despite rising domestic demands, cuts in CU's budget would not have occurred

if budget requests had received strong support from the executive branch of government. Probably the curve will now go up again, owing largely to the fact that President Nixon and Secretary Rogers have faith in the utility of international educational exchange. The Secretary has recently requested a 50 percent increase in CU's budget. The President and the Budget Bureau approved an increase of 30 percent. It is not known what final action Congress will take, but it is hoped that it will approve an increase over last year's budget.

In seeking increased support, the Bureau has tried to define its program objectives more precisely for Congress and to describe them in terms consistent with Congressional understanding of the role of the Department of State and of the government in international affairs. Congress has also been impressed by the contributions being made by other elements in American society and other societies to the total international education effort. Another factor that may contribute to an upswing in support is the greater concern being shown within the Department of State for problems of management and administration.

One difficulty resulting from budget cuts is that the easiest people to let go are the people who are paid to "think" rather than to operate programs—staff who are employed to plan, evaluate, manage research, innovate, and experiment. With the departure of these staff many of their functions have atrophied. Another function that has atrophied has been CU's ability to relate to other organizations and institutions. There are too few persons in CU today who are truly knowledgeable about what others are doing and how this relates to CU's own activities.

The benefits of attrition, however, include the fact that CU has been forced to look at its priorities and decide what to do first, what second, and what to leave undone in relation to its objectives. Reduced appropriations also force government agencies to look outside for help.

CU is beginning to develop some tentative views about policy directions. (One hopes these will not become too rigid.) One assumption is that in an increasingly complex and dynamic world environment, long-term military, economic, and political relations among countries will more and more be recognized as enmeshed in, and influenced by international relationships, patterns, and processes that are becoming increasingly easy to describe and comprehend. These patterns and processes are not only becoming easier to define but will more and more be

affected by the behavior of governments and private institutions everywhere.

One fundamental structure among various transnational structures is the international educational system. No mass media explosion or other explosion is likely to change our common perception that the educational structures of the world will continue to provide the framework for the engines of change and development that affect internal processes and international relations. People are also becoming conscious of the fact that the interests of the superpowers are increasingly worldwide and increasingly affected by (and to some degree at the mercy of) smaller states. We recognize too that massive infusions of economic aid have lost appeal at home and much of their political charm abroad. It is, in short, a world in which governments will be interested in finding new, more subtle, and more economical ways of influencing their external environments. America is also less ambitious than it was 10 years ago. We no longer insist that other countries must be "democratic" or "capitalist" to have relationships with us. (The Soviet Union, incidentally, is pursuing a somewhat similar course.) We are coming to recognize the centrality of cultural and political self-determination as the governing principle for our relations with other states. A final assumption is that as a great power, the United States is interested in reducing the incidence of threats to peace where and as we can. Some of the Department of State's objectives will be seen in this light, one hopes. While it has limited ambitions for affecting other societies, it nevertheless sees the need of trying to prevent extreme solutions for developmental and other problems. Societies must be encouraged to achieve political, social, and economic development in ways that do not aggressively threaten their neighbors. This is a modest ambition but forms a kind of framework for the CU program. It makes sense to legislators who are skeptical of international education or of the achievement of mutual understanding through exchange.

The concept of partnership is held at the highest level in the United States government. This concept derives partly from a sense of proportion regarding our capabilities of influencing the world. It derives also from tremendous reaction in the United States to what is seen as overextension in our assistance programs to other parts of the world. It also derives from a judicious view of the kind of world we want to

see and a balanced strategy of how to achieve this.

If this strategy—the achievement of closer and more realistic partnerships with our friends and better communications with the Soviet Union, China, and other powers with which we have traditionally considered ourselves in conflict—is real and if the United States government in fact desires more interinstitutional, interdisciplinary, and interprofessional relationships across national lines, then there will be increasing attention to learning about these international education processes and to invigorating, reinforcing, and stimulating them in directions that will be constructive.

If the government moves in these directions, certain criteria may apply. There is, first, the question of "numbers." For years everyone in the governmental and private sectors concerned with educational exchanges has been fooled by the numbers game. Changes in numbers have been discussed as if they had some substantive impact or utility from one program to another or one year to another. Numbers of grants and categories of programs have been compared—numbers that were not comparable. Worst of all, people have become concerned when numbers were reduced and elated when they rose. Relations between the executive branch and Congress and between government and contracting organizations have tended to revolve around irrelevant data—irrelevant in terms of the processes and patterns we were seeking to affect. It is difficult but desirable to move away from this concern with numbers and find other criteria for assessing programs.

One useful concept may be the concept of "leadership development." If it is desirable to focus on a single concept in developing areas, this may be a helpful focus for governmental policy.

If government is going to be effective in influencing the large private flows of people, it will need many more effective mechanisms for collecting and analyzing data. No continuous analysis is now available of situations government is trying to affect. A first priority, therefore, is to work together in determining the nature of the situation to which we are trying to contribute. Not only is there need to collect more data, analyze them, and communicate them among ourselves, there is need for government to provide incentives and help for shaping structures in international relations. Government must seek to provide incentives for making more and better use of the undirected and underutilized

private flow of people that form the basic structures of international relationships. Government can achieve more if it invests greater effort and resources in strengthening evaluation capabilities and processes.

Various programs have such different objectives it is difficult to generalize, but somehow government must come to grips with the whole range of outcomes it desires.

Most effort will continue to come from the private sector—universities, organizations, and businesses. But government will respond to pressures from the private sector. Universities must encourage government to assume its proper responsibilities.

There is, finally, the question of where to find resources to carry out needed new activities. Congress should respond to a consistent new approach, and another possible major source is international business. Business firms have taken up many responsibilities domestically. They are beginning to show the same kinds of perception of responsibility about the world at large. Third, some structures and institutions are underutilized, including notably some Fulbright Commissions abroad and various United States voluntary organizations not presently related to the government. Finally, changes are occurring in the United States foreign aid program that may lead to new patterns and institutions; these can be expected to lead to a program of cooperation, rather than assistance—a two-way process rather than a one-way street.

Responses to Questions

The Bureau will give highest priority to efforts to counsel, select, place, and guide foreign students coming to the United States and to efforts to provide a richer experience once they are here. Apart from the educational exchanges CU sponsors, improving the quality of the experience of persons who come to America for serious scholarly purposes is seen as the area in which CU can make its greatest contribution.

United States firms operating abroad appear to be more interested in Asia and Latin America than, for example, Africa. In those areas, they are beginning to provide modest grants for foreigners. More can be expected as their attitudes change and they recognize their broader social responsibilities much as they have done at home. Already there are signs that business firms realize that they can benefit themselves, as well as be socially responsible, by undertaking useful activities in training and

educating the people of the country where their business is.

It is true that government has a responsibility for providing resources as well as for stimulating more private resources. But new resources must be used in new ways—not merely to rebuild old programs or add to existing programs. New ideas are needed. New grants must be better focused and used to affect many different situations. They must not only help particular grantees but make a long-term contribution to patterns and processes in international relations. We must find problems of common concern and programs we can work on jointly, across institutional and international lines, which involve people in depth and in new ways.

Colloquium Discussion

In the discussion periods that followed speakers' and panelists' presentations on major issues and problems, participants commented on a variety of topics.

Developing Information on Participants in Exchanges

A participant noted that the Committee on International Exchange of Persons (CIEP) of the Conference Board of Associated Research Councils, with support from the Department of State, is currently engaged in registering information on American scholars potentially interested in teaching abroad; 10,000 scholars will have been registered by fall 1970, and 20,000 by next year. Similar efforts should be made, for example, to maintain a continuous roster of Africans studying in the United States or elsewhere outside their home country.

Changing Conditions in Developing Areas

Latin America is far from having a "glut" of educated people. Rapid population growth is wiping out gains made under the Alliance for Progress. Educational needs at preuniversity levels and in teacher training are enormous.

The term "glut" used by Francis X. Sutton was intended to describe the oversupply of highly educated persons in relation to employment opportunities. Population growth and local educational opportunities are increasing faster than employment opportunities.

It is doubtful that there is an overproduction of Ph.D.s in the United

States; rather, they are underutilized. Five years ago an undersupply of high energy physicists was predicted; today there are said to be too many. Either observation may be wrong. Conditions change very rapidly. It is not possible to predict precise needs for a period five years hence. In considering what foreign students to admit, we cannot focus too sharply on immediate needs. Rather, the developing countries should be asked what kinds and levels of people they are likely to need for the next 10 to 50 years. Definitions of jobs are changing very rapidly both here and abroad.

Obtaining Information on Developing Areas

Although American scholars visiting developing areas may be able to provide some information about foreign education and manpower needs, there is no mechanism to assure a systematic, continuing inflow of information on conditions and needs in developing areas. Groups like the African-American Institute, The Ford Foundation, and some binational commissions may provide partial data but better, more comprehensive information will be needed, especially if technical assistance efforts are to be separated from capital development.

It is very difficult to know what is happening in foreign universities. No one knows exactly how many American professors are teaching in African universities or how many African students are currently being prepared here to join the staffs of African universities. No one has the facts or a strategic view of where we are making progress or lagging behind. The information gap between the Fulbright program to send American professors abroad and AID programs to train foreign graduates here has not been bridged. But it is probable that we have better information on Americans teaching abroad than on foreign students preparing themselves at American institutions to join university teaching staffs in their home countries. American deans trying to decide what graduate students to admit have no way of knowing whether candidates are in "glut" or not.

The African Graduate Fellowship Program (AFGRAD) has brought a steady stream of Africans to American graduate schools over the past eight years. These students have been carefully selected in needed fields and at levels at which their countries can reabsorb them. The return rate of graduates has been over 75 percent—and would have been higher

except for the Nigerian civil war. The body of experience developed by the Council of Graduate Schools, which participates with the African-American Institute in carrying out the AFGRAD program, may be worth study. Data could be derived, for example, on projections of student reabsorbability.

The problem posed for graduate deans does not relate to carefully administered programs like AFGRAD. Problems arise when deans must weigh applications from Africans outside the framework of the AFGRAD or another sponsored program. The approach of foundations to date has been to undertake solution of limited problems and to handle each segment of each problem properly. This is a limited approach. What is needed is some way of understanding and coping with a great natural phenomenon.

(But deans' experiences with the AFGRAD program have taught them some of the questions to ask in weighing applications from other African students or students from other developing areas.)

A participant wondered if it would be possible for foreign governments, in cooperation with the United States government and international agencies, to set policies governing overseas study by their nationals in various fields. If priorities were determined and registered in some central place, universities could turn to this for guidance and information. Universities must rely on someone else for judgments about what foreign nationals should be trained, and in what fields and at what levels they should receive training.

Universities cannot decide these questions individually for themselves. Some organization is needed to supply information to universities as a basis for their decisions.

A recently published book[5] includes material from 18 countries on the international migration of talent. This gives some picture of student movements. The Unesco project to compare the brain drain in European and non-European countries being undertaken by William Glaser of the Bureau of Applied Social Research at Columbia University, referred to in Walton's paper, may also yield new information on what students accomplish on return home.

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5. Committee of International Migration of Talent, *The International Migration of High-Level Manpower*. New York: Frederick A. Praeger, 1970, 625 pp.

Priorities for Research and Action

Participants have expressed concern about threats to the volume of foreign graduate student enrollments in this country. But concern about numbers may cloud the major issue, which is how to do a high-quality job for whatever number of students American universities can afford to take. It is questionable that priority should be given to efforts to find additional funds.

Foreign students will continue to come despite reductions in scholarship aid. The colloquium should decide whether it is desirable to let this laissez-faire situation continue and concentrate on evaluation or whether to concentrate instead on finding funds needed to continue support of graduate student exchanges at the present level. It would probably be preferable simply to allow foreign students who can find assistance to come and to concentrate American energies and resources on improving the caliber of students for whom our agencies and institutions are responsible.

It is not a question of volume. The number may be higher or lower. It is a question of purpose. Our program may not be reaching the segments of society overseas that we truly want. In Latin America, for example, we tend to favor students who speak English; poorer students are bypassed. Organizations and universities must relate selection more carefully to purposes. Individual institutions may formulate their own rationales, but we also need a well-thought-out national rationale. It is not sufficient to allow students to come on a laissez-faire basis simply because they can afford to do so.

The foreign student population continues to rise, but students who represent an increase in the foreign student population are not enrolling in the major American universities that have traditionally received foreign students. These institutions are known to be tightening their admissions. Students are probably enrolling in a broader range of American institutions. This (healthy) diffusion may warrant study. There is no data yet on what American universities are receiving the increases in the foreign student population.

The colloquium has expressed concern with what foreign students do on return home. It would be interesting to undertake research on the question of whether foreign M.A.-holders are more likely to return home than foreign Ph.D.-holders. Of African students returning home

after study in the United States under the AFGRAD program, 75 percent hold M.A. degrees. It would be interesting to see if the return rate for AFGRAD Ph.D.s is as high as for M.A.s. Some study might be made also of the rate of return of foreign graduate students who come for laboratory jobs or teaching assistantships.

The question of whether to undertake short-term research designed to give quick justification for exchanges or longer-term research on fundamental aspects of the exchange process is a critically important one. Most participants in this colloquium have a vested interest in international education and may favor quick research which will enable them to defend graduate exchanges. This is acceptable, but it is important also to remember that we need a far better understanding than we now have of the entire educational exchange process.

It is necessary to have faith in the American system of values and in state legislators. The latter should be given alternative program proposals, with justification for each, estimates of support available from other sources, and estimates of support needed. People concerned with foreign students have a responsibility to inform legislators of what is desirable and possible, and they have a responsibility for deciding among alternatives.

It is important to do this kind of thing. But it is equally important to satisfy ourselves about the values of the exchange process. Research is needed so that we may ourselves be sure that what we are doing is correct and sensible. Some aspects of the movements of students may well be open to question.

The emphasis on short-term studies to justify bringing foreign students is disturbing. We need to ask hard questions about fundamental aspects and to think about what the answers tell us. At the same time, a number of new developments will affect foreign graduate student intakes. The activities of the Western Interstate Commission for Higher Education (WICHE), which is working on a management information system program in collaboration with several Midwestern states and the United States Office of Education, are relevant in this regard. If universities want to add their voices they must act rapidly.

University costs are high and the American establishment is angry with American youth. Universities are on the defensive. One Ivy League college with a $7 million deficit announced recently that it would make

no faculty replacements. But the universities generally have a moral obligation to faculty and students and cannot respond to changes in the economy as rapidly as, for example, industry. At the same time community demands on universities are growing and new structures are developing. It is difficult indeed to predict the future.

Advocates of research on basic aspects of the exchange process have raised the question, "What are we doing?" We are educating people. They ask, "Are foreign students needed for us to educate our own people most effectively? What are we engaged in?" We are engaged in trying to understand earthly phenomena—all the human and physical interactions that are earthly phenomena. We are trying to understand all that has been thought and the best that is being thought and to use these in some way for the benefit of mankind. Foreign students and their cultures are part of earthly phenomena. We must know about them if we are to fulfill our mission. Instead of talking about "relevance," let us try, within the limits of our financial capability, to protect the seemingly irrelevant. We must as much as possible bring the world into our midst.

It is true that the demands for certain types of accountability will become stronger, that many legislators and others give foreign students low priority, and that present student unrest has created an unhelpful situation. But this is not a time to be defensive. Maurice Harari has stressed the need for cooperation with foreign institutions. The concept of cooperation must be broadened to include others. We are not talking about pure research but about applied research—research that will help us to make the case for exchanges, first to ourselves and then to others. We need to educate others—the general public and state legislators. The WICHE management information program mentioned above can be used by institutions to defend foreign student admissions. Task forces are needed and other cooperative efforts that include enlightened legislators to help others to understand the value of exchanges. There must be an open process of communication before matters reach the legislative stage. Difficult days are ahead, and it may be necessary to rethink our rationale and offer a new defense of graduate education *per se*. In trying to re-sell graduate education to certain elements of the public, we educators must broaden our concept of cooperation to include persons in public life with the same kinds of commitments as our own. The Education Commission of the States established task forces this year on four

critical areas in higher education; these included governors, state legislators, college presidents, and others from the higher education community. When a diverse group is assembled to face a problem, the political context changes and a satisfying degree of interchange occurs. The foreign graduate student program is an example of the kind of problem on which understanding is needed among different elements.

This idea works at the national level, too. The Bureau of Educational and Cultural Affairs has sometimes failed effectively to communicate the values of international exchange to members of the Congress. Universities can assist the executive branch of government by stimulating it to give legislators an opportunity to learn.

It is important for the universities to submit ideas for programs to CU and agencies like the National Science Foundation. If they show activity and interest, it will affect executive agencies of the government, and they in turn can seek Congressional support for educational exchange.

It is a political reality in every state that legislators are going to set budgets and quotas. Action plans must take political realities into account. It might be desirable for proponents of foreign graduate student exchanges to try to assess the quality of American programs in comparison with the efforts of other advanced countries to aid developing areas. The British, Germans, Japanese, and Russians sometimes act more rapidly than the Americans, but their programs may make less effective contributions to developing countries than our own. Research on the relative impacts of different national training programs might be of interest to Congressmen.

It is even more important to know what ties America has developed with the intelligentsia in unstable countries, since they are a significant element.

People concerned with foreign students have multiple preoccupations. Research will be feasible only if problems are broken down. Gloria Ilic has suggested that particular nationality groups be studied (Chinese and Indian students). Such studies might reveal problems with implications for the entire exchange program.

Most universities know very little about themselves. They are unaware of how well foreign students do on their own campuses. It is not surprising that there is little knowledge at the national level. Universities do not even know what policies govern the admission of their foreign

students, since these differ from department to department. The development of institutional policy must be our priority concern. Universities must set institutional goals and undertake institutional research to see how well foreign students are doing. Among American universities, the University of California at Los Angeles is almost unique in following up on the foreign students it admits to see how well they do. Research is not inexpensive and cannot be done quickly. The AACRAO-AID Participant Selection and Placement Study described above is a monumental undertaking, although only 1,100 students are involved. AACRAO, the Association of Graduate Schools, the College Board, the Council of Graduate Schools, and NAFSA must all carefully decide what is important.

Even if agreement were reached among these agencies on research on foreign student performance, proposed programs would not necessarily be funded. Five organizations joined in seeking support for a project to analyze the intake and performance of selected foreign graduate students, formulated in 1967, but neither government nor private philanthropy would support the program.

Several things are taking place, however, that suggest that although problems are serious, the situation is not hopeless. The Ford Foundation has considered various proposals for improving the present situation. The Warkov and Ritterband study, *Foreign Graduate Students in Science and Engineering in the United States*[6] has the merit of being a good national sample and should yield considerable data on the performance, retention, and economic background of some foreign students. Also, we know that Nationalist Chinese students are not returning to Taiwan. A study should be made of why American universities continue to admit them and of what happens after they are admitted. (Data from studies of this kind might enable us to help prevent the future inflow of foreign students who cannot be expected to go home: for example, students from Hong Kong.)

It is difficult, if not impossible, for universities to study the admission and subsequent performance of their foreign students. The Massachusetts Institute of Technology has tried for 15 years to follow up on its foreign Ph.D. graduates to see what they were doing 10 years after grad-

6. Seymour Warkov, University of Connecticut, and Paul Ritterband, Barnard College, are currently undertaking the study under a Ford Foundation grant.

uation. This effort is being terminated owing largely to the poor response from graduates. (Only 20 percent of graduates who had been away 10 years replied; probably no response was received from people who were not successful or who were working in some other area.) A single university is too small to yield a good research sample. A much more concentrated, country-wide effort must be mounted.

No single university should be asked to undertake a national survey or formulate a national rationale. Individual institutions must study their foreign student admissions in the context of their own purposes and goals. Only a national mechanism can develop a national overview. This can be circulated among universities. We must look at the whole process of exchange and consider why it is important for America and the world—the whole over-arching system of education. Education here and abroad must be seen as a single entity. The development of a careful rationale for international education will involve many agencies and institutions and will require a complex, continuing effort.

Chairman's Summary

The presiding officer summarized highlights of the session and suggested that the real art in management is to measure apples against pears—to compare values that do not match. Any administrator who has experienced campus turmoil has had to choose between creating precedents and making concessions. Measuring the value of foreign graduate student exchanges against other disparate alternatives is a delicate management task.

5. Priorities for Action

Panelists and participants considered priorities for action at the next-to-last session of the colloquium.

Panel Discussion

Panelists commenting on priorities for action included Hugh M. Jenkins, executive director of the National Association for Foreign Student Affairs; Donald W. Taylor, dean of the graduate school, Yale University; and Richard Armitage, dean of the graduate school, Ohio State University.

Introduction by Albert G. Sims

In opening the session, Chairman Albert G. Sims, vice president of the College Entrance Examination Board, urged that panelists and participants set aside irrelevant concerns (for example, for programs involving American teaching or study abroad). He asked that research and action be seen as a continuum, without dichotomy. The colloquium has been concerned equally with obtaining data as a basis for decision making and planning and with undertaking actions needed to solve problems.

It is probable that higher education is now past the main burst of expansion and the period of most rapid growth and that funds for higher education will now relatively, if not actually, diminish. At the same time, investments of public funds in higher education are becoming greater. We are at a stage where there is compelling need for a rationale to justify support for foreign graduate students. State legislatures must decide about fair opportunities for citizens of their states and others, including foreign students. Systematic evaluation is needed to determine what programs accomplish for Americans and what they cost. International education must be looked at in the context of a justification for graduate education generally.

Approaches to research and action discussed at the colloquium have related to the following:

1. *Rapidity of change in United States higher education.* Many have been concerned with the rapid changes occurring in American higher

education and the effects these have on international education. Factors mentioned include the so-called glut of American Ph.D.s, the restructuring of higher education, and the politicizing of students. A major question for people concerned with data gathering and research is how to keep alert to changes and how to respond effectively to change.

2. *Changes occurring overseas.* Changes are taking place abroad, including growth of foreign universities, overproduction of highly trained persons in some developing countries, and changes in educational opportunities in still other countries. All affect the flow of students to the United States.

3. *Need for study of processes and outcomes in international education.* Concern has been expressed regarding development in our institutions. We need to know what contributions foreign students are making and how our universities are using foreign students. We need to know what effect students have on their university community and on American students. We need to know, too, what is the right "critical mass" of foreign students at our institutions. A whole range of questions relating to processes and outcomes requires hard research so that we may know what is happening educationally in relation to institutional values.

4. *International links.* The importance of international connections has been stressed. There is need for attention to the generation of knowledge and the establishment and preservation of better international communications in the scholarly field.

5. *Education for change.* Consideration was given to the question of educating foreign graduate students effectively for change (although the colloquium did not focus on whether we should prepare them for change or to be agents of change).

6. *Action-oriented recommendations.* Various proposals have been offered, including one for improved communications at the state level with legislators and others and with the federal government. The need for cooperative action by institutions and organizations has been emphasized. Finally, there is the question of what actions should be taken as a result of the colloquium.

Remarks by Hugh M. Jenkins

The winds have been so favorable for international education that everyone has been content to do nothing rather than risk rocking the boat.

Today we may pay a price for not having had a clear policy.

In defining needed research priorities, we should also see what information is immediately available that might serve a useful purpose—not as a substitute for research but as a needed complement. Intermediate study and in-depth research are not "either/or" propositions; we can use one while we wait for results from the other.

The answers that universities and program sponsors require may not be the same as those required by legislators. Simple answers may be needed as well as scholarly responses. While it is important to undertake research on whether our international education efforts are valid and are being done effectively, this takes money and, more important, time. We cannot hold up the process of exchange while doing research.

Private foundations have information that has not been used. And NAFSA in its field service program has conducted 500 campus interviews on undergraduate and graduate exchanges; the reports of these interviews contain valuable, immediately available information. Visits to junior colleges have also yielded data about their programs. Concern has been expressed about the lack of communication with colleagues abroad, but relevant information does exist; results from the international survey on why professionals migrate and return will be available in early 1971. The seventh annual report from the United States Advisory Commission includes 13 recommendations that offer further pointers about subjects for attention, including possible establishment and maintenance of a central inventory of public and private programs (this could be initiated immediately).

The timeliness of immediately available information is an advantage. Longer-term research necessarily requires a certain amount of rigidity. But new problems constantly arise. Needed flexibility can be maintained by working with available data.

By undertaking contemporary fact-finding we will be able at the next colloquium to review not only research-in-progress but completed research and its resultant action.

Remarks by Donald W. Taylor

To set priorities for action it is necessary to know one's objectives, to have some concept of alternate means for achieving these objectives, and to have some idea of the probabilities of success.

First of all, one's own objectives are also the objectives of a university —a particular university—and of a graduate school of arts and sciences within this university. They are, first, to add to knowledge through scholarship, research, and other means and, second, to educate students and, possibly, faculty. If these are the objectives, how does one set priorities? The answer will vary from university to university. Yale tries to do the best job it can for the best students it can attract in areas best fitted to Yale.

In addition to knowing one's objectives, it is necessary to find resources to accomplish them. Many universities will face a very difficult situation over the next five years. We have enjoyed an affluent era for graduate education and research. This has now come to an end—so sharply that everyone may not as yet fully realize it.

First, university costs have risen. Faculty salaries have increased 75 percent in the last 10 years. Nonacademic salaries have also suddenly risen at an even more rapid rate. Construction costs have gone up enormously. (At Yale building costs had been generously estimated at $52 a square foot; two years later they had risen to $82 a square foot.) Computer costs are very high and getting higher. Library costs are increasing by 15 percent a year.

Second, income from customary sources is declining. Tuition increases have been rapid, but many universities are reaching a point of serious opposition to further rises. Endowments are a thing of the past. Annual grants have been adversely affected by students' actions. Federal research support has been sharply cut. (Yale was advised in April that federal funds for research would be cut by 30 percent on several major contracts.) Fellowship programs are similarly shrinking. (United States government fellowships have been cut 62 percent in the last four years; they may be cut 30 percent further by next year.)

These are difficult times, and the question universities really face is where to cut—how to adjust to rising costs and reduced support. Across-the-board reductions of 10 or 20 percent are not the answer. What graduate schools must decide is what to eliminate in order to continue to do some things well and, in addition, perhaps to try to undertake some new things.

It is not clear how these changes affect the education of foreign graduate students. But there are three possible areas for action in relation to

graduate education in the arts and sciences up to the Ph.D. level: admissions, financial aid to students, and the kinds of programs that are offered to graduates.

Many graduate schools are cutting back on admissions. Yale is cutting the number of graduates admitted by 30 percent. Stanford is reducing admissions in humanities and the social sciences by 33 percent. Harvard will cut by 20 percent over a five-year period. Cornell is cutting by a little less. The University of California at Berkeley would like to reduce admissions but cannot for a variety of reasons.

Graduate schools are reducing admissions partly because of reductions in fellowship funds. The graduate school at Yale experienced a $500,000 deficit in its fellowship program in 1969-1970 because of the high percentage of acceptances by admitted students and a higher-than-expected percentage of returning students. Financial aid problems stem partly from reductions in federal fellowships and partly from the fact that tuition rises increase the cost of fellowships.

There will be no selective cutback of foreign students at Yale. The graduate school admits the best 500 students it can find without regard to their country of origin. (But admissions are not "equal" among departments. In some departments the ratio of applications to admissions is 10 to 1; in others it is only 2 to 1. Since admissions are being reduced by 30 percent overall, it is probable that foreign student enrollments will decline by about that number. If Yale wanted to increase its foreign student population, it would have to find ways of attracting applicants who can compete effectively with Americans. But this is not true of all departments. In one department this year, there were two times as many foreign applicants as Americans, and more foreigners were admitted than Americans. Foreign students may be attracted to Yale because of general knowledge of the university and may not know the strengths and weaknesses of particular departments. This has troubling policy implications.)

It would be desirable to set priorities for national action in regard to student financial aid. Almost all graduate students in some departments are covered by federal fellowships—even today. But these departments are often not the strongest, and foreign applicants are not eligible for support. The dean must decide whether to use university funds to finance foreign students.

A third area of decision relates to the nature of the educational programs offered. Given the Yale graduate school's general objectives and criteria, it would not be desirable to establish special curriculums for foreign students, although other universities may want to do this. (At the same time, special services may be needed. Two groups at Yale, for example, are concerned with foreign students' housing, families, and related matters. This is reasonable.) Although Yale has no special commitment to the education of Germans in history, it happens to have a history department which is especially strong in modern German history. The department has traditionally sent Ph.D. candidates to Germany to do research and has, in turn, accepted German students. This is a sensible kind of cooperation which fits Yale's special needs.

Given reductions in resources, institutions must explore the possibilities of cutting particular programs or departments. In stringent times, data are needed as a basis for making cuts. Yale appeared to have fairly good cost information. It is now apparent that much better data will be needed, much more rapidly, as a basis for hard decisions. ("Operational data gathering" should be lumped with "action," since it is closely tied to the difficult choices to be made.) In gathering operational data universities should cooperate to our mutual advantage. For example, Princeton Provost William Bowen is making a study of financial aid to graduate students in 10 departments on 12 campuses, including Berkeley, Brown, Cornell, Chicago, Harvard, Massachusetts Institute of Technology, Michigan, Pennsylvania, Princeton, Stanford, and Yale. This study should yield data by fall 1970.

In thinking about research (as distinct from operational data), we must ask what its purposes are. The purpose of psychological research is to increase understanding of human behavior; the purpose of physical research is to increase understanding of physical phenomena. If our basic purpose is to increase understanding of the processes that take place in foreign graduate student education, this is an enormously complex problem. One must begin by asking the purpose of graduate education—whether it is to prepare people to do research or to teach or to be agents for change. We know little about any of these areas. Even if we focus only on the objective of educating persons to do research, we know almost nothing. Research on the general problems would be preferable, therefore, to research on foreign students.

Remarks by Richard Armitage

There is a crisis in the public sector. Institutions must order their own priorities and then coordinate within the state system. Priorities for research and action should include the following.

1. While taking note of favorable budgetary action recently effected in certain government sectors, this conference should nevertheless issue a statement of its deep concern about the steady reduction in monies available for selective development of foreign student enrollment on the campuses of American colleges and universities.

2. There is urgent need for a clearly articulated national policy regarding foreign student exchange that would set forth long-range national goals of such exchange to which all interested entities might relate their own purposes, policies, and future levels of support.

3. There is clearly a need for up-to-date and comprehensive informations about the various sources of financial support of foreign graduate students, and an appropriate agency should prepare at regular intervals a national census of foreign graduate students containing minimal pertinent information about financial support.

4. Every university should be urged to formulate its own rationale for continuing to grant admission to foreign students in the 1970s, should identify the true costs of its present foreign student training programs and should set both short- and long-range limits on admission and support levels. These projections should be communicated to appropriate federal agencies and private foundations involved in foreign student placement. It is recognized that such studies and priority decisions will, in many cases, require endorsement by appropriate state and regional coordinating agencies.

5. There is need for more information about the effectiveness of programs concentrating on training at the master's level, and the conference should suggest that a study be made of certain programs (for example, AFGRAD and LASPAU) that have available information that would lend itself to a manageable and relatively inexpensive study of the effectiveness and relevance of such programs. Emphasis here would be on the subsequent placement of grantees and of their success in the work to which they are assigned in their home countries.

Recommendations from the Colloquium

In considering priorities for action, participants focused on the five suggestions offered by Richard Armitage and on two additional suggestions put forward subsequently by Hugh M. Jenkins. After full discussion, a drafting committee was appointed consisting of Jane Jacqz, Sanford C. Jameson, Albert G. Sims, Maurice Harari, and Leo J. Sweeney. This committee developed the following recommendations in consultation with the colloquium participants.

Recommendation 1

Each university should develop an explicit rationale for the admission of foreign students and prepare itself for closer scrutiny by boards of trustees or regents, as well as by state and other funding agencies, as to why these students are being admitted and supported. This rationale is intended basically for internal comprehension and planning in the first instance, and eventually for the formulation of the national policy referred to in Recommendation 2.

Recommendation 2

There is need for a long-range national policy on international exchange of graduate students to which individual institutions and graduate schools can relate their own policies. Clearly, such an expression of policy ought to be arrived at in consultation between academic institutions and the government.

Recommendation 3

The fellowship and traineeship programs sponsored by various government agencies have provided much needed and appreciated direct support for graduate students and graduate schools. Most of these programs benefit American students, but their existence did free some limited monies in many universities for the support of students from abroad. Converting this direct support system to a loan program would significantly reduce benefits, both to American and foreign graduate students as well as to institutions. The members of this conference urge, in the most vigorous terms, that fellowship support systems be maintained.

Recommendation 4

There is need for a more complete annual census of foreign students, going beyond the data reported in *Open Doors* and including the financial aid they receive. It was suggested that the Bowen study at Princeton be used as a sampling of the foreign student situation, though the study as such concerns financial aid to graduate students in general. Between the complexities of the Bowen approach and a simplistic approach to "financial aid," an intermediate approach may be indicated: to categorize support into "service" and "nonservice," and to subcategorize "service" by type of assistantship. On the other side, donor groups could be distinguished as "federal," "state," "private," "joint," and "others."

Recommendation 5

Greater attention must be paid to the utility of master's programs for foreign graduate students. As likely subjects for study of this problem, the LASPAU and AFGRAD programs were singled out. The vote was unanimous that a study of this problem be undertaken by the Council of Graduate Schools or other appropriate agency.

Recommendation 6

Available data should be more systematically tapped, for example, the consultations conducted by the NAFSA Field Service program and the IIE data relating to selection and admissions procedures as reported in *Open Doors*. Data underlying these consultations or publications should be more fully analyzed and exploited.

Recommendation 7

In developing policies concerning the admission and training of foreign graduate students, sustained efforts should be made to consult with appropriate people overseas involved in the formal educational system as well as others with legitimate concerns in national manpower objectives.

6. Conclusion

The principal speaker at the concluding session of the colloquium was Gustave O. Arlt, president of the Council of Graduate Schools in the United States.

Presentation by Gustave O. Arlt

A number of valuable comments have been offered at the colloquium. Of special interest was the suggestion that systematic evaluation is needed of what we have been doing, are doing, and will do. All of us have been engaged in international education without thinking through the philosophy and portent of this enterprise.

American education of foreign graduate students began as a kind of philanthropic gesture toward young people abroad less fortunate than we. This philanthropic attitude toward exchanges and foreign students has probably hindered the development of analysis. We tried to make the foreign student comfortable and help him learn; if he didn't, we advanced him anyhow. Fortunately for us all, "the Chinese Ph.D." has now largely disappeared. As the flood of foreign students increased and support became more scarce, we became more careful in selecting students and began to apply standards comparable to the standards applied to American students.

We need now to examine the objectives of foreign graduate student education to see what we intend to accomplish besides a simple benefit to international good will. One possible objective is to supply highly educated manpower for the development of other countries. The African Graduate Fellowship Program (AFGRAD) is an example of the kind of program whose success depends on the contributions its graduates make at home. But it may not be possible to apply the same standards to students from the more advanced countries. Certainly we did not apply them for many years to students from India and Taiwan, where the overproduction of educated manpower has been tragic.

The concern for excellence expressed by Donald W. Taylor of Yale—whether in American or foreign students—is important. High-quality institutions must not make distinctions between foreign students and other students. It is true, too, that as costs rise and funding shrinks, uni-

versities must examine carefully their admissions and financial aid policies and the nature of the programs that they offer.

As Richard Armitage suggested, each institution must determine its own rationale for admitting and supporting foreign students and reach agreement on its short- and long-range plans. What is proper for one institution or one state may not be appropriate elsewhere. Institutional autonomy is a cornerstone of the American educational system and must be given high priority.

Exchanges of information with our colleagues overseas are an important element of international education. Certainly we should exchange information and practical policy applications with universities in Canada, which share many of the problems that we face.

As suggested in a new book by Dimitri Chorafas, *The Knowledge Revolution*,[1] the United States and other "have" countries may be less responsible for the brain drain than students' countries of origin, which may fail to recognize the value of highly trained people or to make adequate provision for them. This is an area worth study.

Our own attitudes toward foreign students may also warrant study. We have traditionally believed that our purpose was to aid the individual. It is only recently that we have become concerned about the harmful effects on developing countries of programs that may drain off their best brains. In the AFGRAD program, students have been selected in relation to national needs, and their governments have promised to employ them on returning home. This kind of approach may now be necessary for students from developing countries. Our concern must be for the country and not the individual.

Responses to Questions

Replying to questions, Arlt expressed the hope that the Council of Graduate Schools would be willing to sponsor a clearinghouse or secretariat on research. It has already shown interest in establishing a data bank on graduate education, which would include a section on foreign graduate student education.

Hard days are ahead for graduate education, but this may not last.

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1. D. N. Chorafas, *The Knowledge Revolution: An Analysis of the International Brain Market*. New York: McGraw-Hill Book Company, 1968, 142 pp.

This administration is not hostile to graduate education or to international education. The President was very interested in international education during his service as Vice President.

We who are concerned with international education hope that we are entering an era in which everyone who wants continuing higher education can obtain it for as long a period as he wants. Professionals will continue to receive education after beginning practice, along with "education for citizenship" in the form of information on politics, economics, history, and even literature and art. There is no reason why the foreign graduate student cannot fit into this kind of picture.

Organizations abroad with which American universities and organizations might establish ties include associations of rectors in Germany and Italy, the Association of Vice Chancellors in Great Britain, and the Association of Canadian Graduate Schools and the Committee of Presidents of Ontario Universities in Canada.

As for the relevance of American curriculums for foreign students, interdisciplinary programs are already an accepted fact of life. But they cannot be expected totally to replace the traditional disciplines. We shall have to work out our own curriculums to fit the needs of our society, and foreign students can benefit from what we have done.

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June 16-17, 1970[1]

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1. Affiliations shown are those that were current at the time of the colloquium.

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Appendix A.
The Foreign Graduate Student: An Opportunity for Higher Education in America?

The Institute of International Education's Committee on Educational Interchange Policy, appointed in 1954, produced a statement in 1960 that purported to aid colleges and universities in assessing their educational exchange activities. The statement, I am sure, was intended to be provocative in setting up issues for institutions to face in planning extensions of, or the inauguration of (or both), new ways to meet the needs of foreign students. Today the questions are still with us, but they have a more emphatic tone.

At the outset, the policy statement makes certain broad assumptions about the benefits of academic exchange and announces that the foreign student "comes to the university to study and learn. He represents the challenge of an intellect to be developed. He is the scientist or the scholar of the future. He may use his knowledge in the service of his country. His presence in the classroom helps to broaden the outlook of American students, and may stimulate faculty to re-examine teaching methods and curriculum. His presence on the campus and in the community contributes to understanding of other countries and to a lessening of American provincialism. His impressions of America help to clarify a fuzzy and sometimes distorted image of the United States. While the full value of having foreign students on campus is probably not being realized at present, the potential value is great."

Following these assumptions, questions were then posed having to do with the critically continuous problems that face all universities in financial and academic planning today. So there is a timeless quality in the 1960 report. Some of the questions are so broad that they can apply to our treatment of all students, whether they are upper-middle-class types

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by George H. Huganir Jr.
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in an "elite" university or "disadvantaged" black students from the ghetto attending an urban university in New York, Philadelphia, or Detroit. A popular word, "relevance," comes to mind in one of the committee's questions, "What kind of academic program should be offered to foreign students?" Those of us in higher education note one campus phenomenon in 1970—that is, the frantic assessment of and planning for new programs and curricular changes within all levels of student life, undergraduate, graduate, and professional. The word "frantic" applies because the planning process is intermixed with student power movements, loud voices indicating students are alienated, and our reaction to statements emanating from political leaders disgusted with academia generally. Needless to say, the planning process for orderly change and adjustment in our practices is not part of a reflective situation.

The ivory tower is under attack by many constituencies—government, alumni, community, business, and its closest critics, students. No university faculty person or administrator goes without advice these days. We are asked to provide "meaningful educational experiences" for multi-varied groups, and it is the definition of those "experiences" with which we must grapple. In these efforts we may get tired, but I am happy to say, boredom is not with us.

Are considerations of our responsibilities to foreign students being neglected because of the distractive crises on university campuses? As educational hosts we should not practice neglect nor should we reject the proper expectations held by students from abroad, but if the domestic family is divided, it is difficult for the host to be gracious and careful. I think we are becoming careless in our relations with those who come to us, yet they think we are friendly and knowledgeable.

So we must return to the 1960 questions posed by the Committee on Educational Interchange Policy if we are to deal with this colloquium's discussions about "The Foreign Graduate Student: Priorities for Research and Action." Let us look at the words, the questions, and the implications for the decade ahead: "*Does an American education meet the needs of all foreign students? Does it permit them to make a constructive contribution to their home countries?*" The committee called our attention to the fact that students from developing nations think that our approach to education is practical and that this is one reason for their coming to our shores, but we are told that many, when returning to

their native lands, find no practical relevance between their American learning and their career development in facing the problems of professional practice at home. The committee properly suggested that universities adjust their ways of study and research to meet the individual needs of students from developing countries. Universities were warned that costs would be high to meet so many individual cases and that special courses could isolate foreign students from the "mainstream of academic life" and would tend to lower academic standards. Improved foreign student counseling and close academic advising geared to the needs of the individual were recommended so that flexible programs of study could be offered, some of which would not be degree oriented. Further, we were advised then that matching the student to the character of a university curriculum was an important responsibility for all, so that his needs and interests would be compatible with a program's promises. A logical conclusion was offered: "If the American university does its job well, the foreign students will take back knowledge and abilities that will be valuable in the long run." A defensive caveat called our attention to the fact that the application of knowledge in the short-term is not necessarily "the test of a successful education." In other words, a general education without practical relevance may provide insight and intellectual sophistication that can be helpful in national development.

I applaud this 1960 statement because if we as workers in the vineyard of higher education have any imagination, we can take this statement and apply it to American graduate students who certainly do not breeze through our gates without pain, shock, dismay, anxiety, frustration, and defeat.

There are significant analogous factors in the problems raised by the "dependent" ghetto-type black students entering our classes today and the foreign students from developing countries. One optimistic point may be made. Experiences in socializing the poor black student to the world of intellectual pursuits can provide insights that may be effectively utilized in our dealings with the foreign students who enter our classes in the 1970s.

But there is one important difference between the "dependent" American black student and the foreign graduate student who requires close guidance and compensatory courses. The black American community has a *right* to demand the necessary changes in curriculum and programs

to meet its student interests. The foreign student's role makes him less powerful in his influence on curriculum adjustments and admissions standards. University and college facilities will be taxed severely by these demands.

In our attempts to satisfy this new student segment seeking service from higher education will we forget our interest in the educationally deprived people from foreign lands? How do we achieve a balance in this new situation?

We could turn our attention inward to such an extent that we accelerate attitudes of "provincialism" in the educational community (included are regents, trustees, faculty, administrators, and students). The condition is particularly serious in state systems of higher education in which institutions have a different set of obligations in comparison to private institutions. It is presumed that the latter types are less subject to the "silent majority"!

Rising costs in higher education, part of inflation and war, are influencing political leaders to ask some very practical questions. State-aided and state-related universities and colleges are on the defensive. To us as faculty types, the questions may seem impertinent and shortsighted. But in the world of politics, they are imperative. For example: How many out-of-state students are enrolled? How many students in the medical school are our own? Of your student-aid monies, what percentage is awarded to in-state students? How many graduate students remain in the state to work after receiving their degrees? What percent of students in teacher-training seek positions within the state? And so on.

Obviously the implications of such ethnocentric attitudes cannot be ignored. They are not sympathetic to increasing the numbers and support of foreign graduate students unless we can clearly define the needs in practical terms. How can we justify institutional support of foreign students if staff and space limitations prevent accepting tuition-paying domestic students?

John Melby, who served as director of foreign students at the University of Pennsylvania wrote in 1964 that "Americans are paying court to the foreign students for several obvious reasons and some not so obvious." Among his reasons are, "Americans are by nature a friendly people," and we understand the role of the stranger in a new situation. We

realize how little we know about other lands and their peoples: the foreign student is perceived as a catalyst for reducing this ignorance. Unadmitted is the consideration that the foreign student is really in fact related to United States foreign policy. Melby suggested that unconsciously we guard ourselves from guilt by ignoring or denying this aspect.

Among the priorities for research and action for the 1970s is the determination of the extent to which our foreign graduate students contribute directly to the international social system. This would entail measuring the value of the product in terms of services expected to be rendered by the student when he becomes qualified to enter the laboratory, the office, or the classroom. How does one measure the value of a young graduate, a professional dental student who will return to Iran? Of what value to America is a young Algerian scholar who may compete with our own instructors in French literature? (I'm told there is a surplus of secondary school language teachers today.)

Since "cost effectiveness" is a factor attached to modern program budgeting in bureaucratic organizations, decision makers allocating funds for supporting expensive graduate programs are going to press us on *proving* the worth of specialized research and study. Not all of these areas possess the glamour of the healing arts. How can the average legislative leader appreciate the need for researchers in photo-chemistry when his pragmatism requires that there be quick returns for federal funds spent?

The international exchange data indicate that foreign students tend to be concentrated in certain institutions. Figures for 1968-69 show 58 percent of all foreign students were studying in the 72 institutions enrolling 400 or more foreign students. The remaining 42 percent are distributed on the campuses of 1,774 other institutions. Graduate students comprised 45 percent of the entire group. The data on length of stay and expectations led the Institute of International Education observers to suggest that "student exchange is a fairly significant avenue of immigration." Hence many of these students will enter the American occupational system, and studies could be designed that would determine the direct contributions made to the American economy. Can the large number of students in engineering from the Near and Middle East be absorbed at home and here without painful underutilization of trained

skills? *Earned Degrees Conferred*[1] can provide certain information that would be helpful in studying the impact of foreign American trained Ph.D.s on the American scientific community.

In some institutions the predoctoral foreign students are the mainstay in manning the undergraduate laboratories. The Far Easterner is a familiar face in the medical science centers. These types are making educational contributions during their learning period to American research and teaching.

Charles Frankel, in the fall of 1967, at a seminar here at Wingspread defined the brain drain phenomenon as a function of new nondiscriminatory immigration policies. He predicted that this trend would become more acute in the 1970s, but that the answer to this problem is in the ultimate diffusion of "intellectual and economic stimuli beyond national borders, to create multi-national enterprises in many places." Intergovernmental agreements are necessary to reach equality, and John Melby urges such action: "Who else is in a position, by law, to discuss with other governments their real needs and resources? And who else has the legal authority to work out with other governments cooperative and self-restraining programs designed for the maximum benefit of all? The answer is that all these things are already being done and have had some effect, but they are done haphazardly, on too small a scale, and without an overall plan."

Assuming the necessity for *proving* the value of foreign student exchange, we cannot avoid the imperative need for evaluation and research. Those of you who are familiar with the report of the 1967 seminar dealing with the Fulbright-Hays Student Exchange Program know that the participants felt that previous studies on the program lacked "scientific rigor and sophistication," and that they are merely descriptive in nature. In the face of this conclusion, the participants reached "intuitive consensus," that the Fulbright program had been successful. This is understandable—but how can we encourage financial support by just saying any of our programs are achieving the goals we set for them? NASA spent and is spending huge sums, and the whole world saw

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1. U.S. Office of Education, *Higher Education: Earned Degrees Conferred*. Part B, Institutional Data. Washington, D.C.: U.S. Department of Health, Education, and Welfare. Published annually.

or heard about the results. We need during this decade a series of studies to prove the value of student exchange. Some of these could deal with complex behavioral changes inherent within the individual student's intellectual development, some could assess the mutual economic returns to us and the student and his nation, and some could evaluate the distribution of values by perceiving the foreign student as a social change agent. These types of research cannot be snapshots; of necessity they must be continuing and longitudinal, covering the students' professional careers and their influence on us over a long period of time.

Without program study, we shall have to depend on our own sentiments and our abilities to seek the sympathy of others who may agree with us with no firm assurance. Technological advances are seen, felt, and used in our culture—a certain amount of capital and human effort produce our material goods. But to prove the worth of human service efforts is difficult. Only the most carefully designed research projects will buttress our beliefs that advanced study for other nationals can be politically, socially, and economically purposeful. In the process the inadequacies and faults will undoubtedly show too, and that will be good.

In the 1960 report of the Committee on the University and World Affairs (The Ford Foundation) we were warned that increasing domestic student enrollments would represent a force to inhibit the numbers of foreign students received. The report stated, "Any such policy is not responsive to the needs and opportunities, particularly in those countries of Africa and Asia that are just beginning to develop their own educational systems . . . for the needs of modern manhood. For a number of years to come, the universities and colleges of the United States and other countries with highly developed educational systems will have to fill the critical gap between the educational needs of these countries and the limited capacities of their own educational institutions." The committee admitted to "contributing to a point of view," and that it expected other agencies to translate the report into action.

The concept of mutual aid implies that participating groups or nations both enjoy certain benefits from cooperative efforts focused on definite goals.

The goals and objectives of higher education in America are general enough to satisfy the needs of any foreign graduate student in a program

compatible with his requirements. In our research and study we ought to assess the purposes of other social institutions whose support we require if educational interchange is to be mutually beneficial. Private groups and public agencies must be included in our planning and searching for the best ways to achieve collective benefits. The studies, the experimentations, the follow-ups will be continuous—they must be, since social change affecting international affairs and human behavior soon make short-run arrangements obsolete.

Appendix B.
Research on Foreign Graduate Students: A Review of the Literature

Current statistics show that 45 percent of the 121,362 foreign students in the United States in 1969 were at the graduate level compared with 35 percent 10 years ago. This proportion is the highest attained since the Institute of International Education (IIE) began publishing an annual census in 1949. Among students from the Far East the proportion of graduates was almost 60 percent. Among students in the physical and life sciences, graduates outnumbered undergraduates by almost two to one. Half as many graduate foreign students are self-supporting as undergraduates, and more than twice as many graduates are supported by United States educational institutions (figures from *Open Doors, 1969*).

The steady growth in the proportion of foreign graduate students was predicted by John Thurston in 1963 in an article dealing with the "education explosion." His estimate of 120,000 foreign students in the United States by 1970 has proved remarkably accurate. He also pointed out that graduates were increasing at a faster rate than undergraduates, with heavy concentrations of students at relatively few graduate institutions. This fact alone would make the subject dealt with here a significant one to American graduate schools and professional organizations.

Policy planners and administrators have tended to favor graduate over undergraduate foreign students for many years—although undergraduate study abroad was preferred where Americans were concerned. Emphasis on graduate-level study coincided with emphasis on economic development as a goal in foreign student exchange. The major reasons cited for preferring graduates were that they were more likely to contribute to the economic growth of their home countries, that they were less likely to remain permanently in the United States (since they were not as readily alienated as younger students), and that all students should

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by Barbara J. Walton
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complete the education offered at home before going abroad.

Cora Dubois detailed the arguments for and against undergraduate study in the United States in her classic work, *Foreign Students and Higher Education in the United States* (1956). IIE's Committee on Educational Interchange Policy (1961) declared that "except where undergraduate facilities are inadequate, students should generally be sent abroad only at the graduate level and for highly specialized studies." More recently (1964) the Committee on Foreign Student Affairs set up by Education and World Affairs reviewed the policy considerations involved in deciding between graduate and undergraduate students and generally favored the former.

Campus and Nationality Studies

Most of the research conducted on foreign students during the 1950s and early 1960s did not differentiate systematically between graduate and undergraduate foreign students. Typically, studies dealt with the problems and attitudes of all foreign students on a particular campus or of all students of a particular nationality. A few distinguished between graduates and undergraduates on certain items. An early "problem" study administered a checklist to all international students at Purdue and found that graduates had a lower problem score than undergraduates (Forstat, 1951). A more detailed study at the University of Pennsylvania (Melby and Wolf, 1961) revealed that graduate students (who made up 81 percent of the sample) were more likely to be satisfied with their academic program than were undergraduate students. The authors also reported that fewer graduates were getting failing marks than undergraduates, and that there was one major difference in their attitudes toward the United States: graduates were more likely to describe themselves as "sympathetic" toward America's race relations problems (43 percent) than were undergraduates (30 percent).

A number of studies of nationality groups throw light on foreign graduate students. Lambert and Bressler (1956) studied 19 Indian and Pakistani graduates at the University of Pennsylvania as part of a larger research project sponsored by the Social Science Research Council. They described in detail the impressions these students had of American life and their view of their role as interpreters of Indian culture. They also inquired into student attitudes toward their studies and the antici-

pated impact of these studies on their future careers, which they found varied greatly depending on field. (Those in business administration were the least concerned about academic success, because it was "of minor importance to their advancement chances on return.") Special problems of adjustment experienced by Indian students were analyzed, and a recommendation was made that foreign students need to participate in American life, rather than simply observe it.

Graduates Compared with Undergraduates

A careful study of Arab students and their acculturation was carried out by Gezi (1959). Using a sample of students at California colleges and universities, 72 percent of whom were graduates, he found a far higher degree of general satisfaction among graduates than undergraduates (82 percent as compared with 47 percent). He commented that "since graduate students usually come to the U.S. with clear-cut purposes, such as the attainment of advanced training or a professional degree, they are more likely to adapt themselves to the requirements of their colleges and to the different demands of the college environment. . . ."

A nationality study involving Africans at institutions in all parts of the United States (Davis, 1961) established the fact that, among Africans too, graduate students report fewer difficulties than undergraduates. When confronted with a checklist of problems, 27 percent of graduates reported "no difficulties," compared with 13 percent of undergraduates. It was also found that fewer graduates complained of financial difficulties, but that proportionately *more* graduates than undergraduates complained of homesickness and discrimination. (Three quarters of all the African students reported discrimination, especially in restaurants, at social events, and in seeking housing.)

In certain other studies half or more of the sample consisted of graduate students, but no further detailed breakdowns were given. For example, 88 percent of Coelho's (1958) Indians were graduate students, as were 58 percent of Rathore's United States sample of Pakistanis (1957). Of Ruscoe's Latin American students, 45 percent were graduates. Conclusions of these studies concerning student perceptions and attitudes, as well as student adjustment to academic life, are probably applicable also to graduate students, as least in broad outline. For more complete reports on the findings of foreign student research in general see Margaret

Cormack's study for the State Department (1962) and my *Foreign Student Exchange in Perspective* (1967).

Academic Performance

A few studies throw light specifically on the academic performance of graduate students, defined narrowly as to how well students do in terms of grades. An early (1952) research effort by a committee of the Association of Graduate Schools obtained information from 25 member schools representing two-thirds of the foreign graduate students at these schools. The study emphasized the relationship between grades, nationality, and field of study. Among other findings, fewer of those entering with a Ph.D. did "below average" work than of those holding no advanced degree at time of admission.

Hountras (1956, 1957) found that at the University of Michigan 44 percent of the foreign graduate students were on probation at one time or another between 1947 and 1949. Difficulties were greatest during their first enrollment but tended to clear up thereafter. One out of two students who were admitted with only a B.A. incurred probation at some point, compared with only one out of five of those holding M.A.s and one out of three of those holding doctorates.

A rare comparative study involving American students showed that foreign graduate students were less successful academically than American graduate students—and that *both* were less successful than Canadians, treated as a separate group (Lins and Milligan, 1950). Cajoleas (1958) also compared foreign students and Americans, using a sample of Columbia Teachers College doctoral students between 1946 and 1955, and found the academic records of the foreign students lower.

There is some evidence, however, that foreign students at the graduate level perform better than those at the undergraduate level. A large-scale study of 5,700 students at 31 institutions (Koenig, 1953) showed that the proportion of "above average" grades increased at higher academic levels (True also perhaps of American students?). Warmbrunn and Spalter (1957) found that at Stanford undergraduates failed twice as often as graduates. And Kincaid (1961) reported that among non-European students in California institutions, 78 percent of the graduates said they had a grade average of B or higher compared with only 27 percent of the undergraduates. An excellent summary of research findings

on academic performance of all foreign students is contained in Ivan Putman's article in the *Annals of the American Academy of Political and Social Science* (1961). Worth mentioning also is a study in progress at the University of Michigan that aims to develop a predictive model of academic achievement for Indian graduate students (Talleen, forthcoming).

Two United States Government Studies

Two government-financed studies of foreign student problems present the most detailed picture of foreign graduate students available. Kincaid (1961) used a sample of 440 students from developing countries at California institutions, about 70 percent of whom were graduate students. He asked some 40 questions about their goals and problems, and broke down all answers by academic status. His general conclusion was that "the majority of students have no overwhelming problems with English competence, financial support, housing, or courses of study and grades," and his charts permit a detailed analysis of this finding by academic level. The goals of graduate students were oriented more toward career preparation than were those of undergraduates; 65 percent compared with 58 percent described their goal as "acquiring skills and knowledge in a particular field." Only 15 percent of graduates, on the other hand, said they aimed to "increase understanding of Americans," compared with 25 percent of undergraduates. Differences were found in other areas. Graduates consistently rated their ability to read, write, and speak English higher than did undergraduates, and more graduates were "very well satisfied" with their course of study—44 percent compared with 35 percent. On the other hand, fewer graduates (37 percent compared with 48 percent) were "very well satisfied" with the housing they were able to secure at their college or university, and cost was cited most frequently as the reason for dissatisfaction. Also, graduates received fewer invitations to visit American families, but were more satisfied than undergraduates with the number of invitations received. Clearly the undergraduates considered home visits more important than did the graduates.

Along the same lines, but carried out nationwide, Operations and Policy Research conducted a large-scale study for the United States Advisory Commission on Education Exchange (OPR, 1966), which dealt with the complete range of foreign student problems. Every question

broken down by academic status, resulting in 419 printed pages of tables. It is impossible here to present a complete analysis of this study, but a few findings can be noted. Confirming Kincaid, graduates favored concrete educational goals rather than getting to know America; they had greater confidence in their ability to read, write, and understand English; and they were less satisfied with their housing. On the problem checklist, however (money, food, homesickness, and so on), there was no significant difference between graduates and undergraduates, in contrast to some other studies.

A final significant study of foreign graduate students should be mentioned, because it challenged previous concepts of adjustment cycles and suggested a new line of thinking about foreign student research that should be pursued in future investigations. Eighteen non-European graduate students at Stanford were studied intensively by Selby and Woods (1966). They reported that the major preoccupation of foreign students at a "high-pressure institution" was keeping up academically and that success in this area was the major determinant of student adjustment. Furthermore, pressure to achieve prevented the development of close personal relations with American students or others in the college community. "The structure of academic life precludes social activities of a leisurely kind as well as wide social contact with American students. Student morale rises and falls with the academic seasons and, in fact, the academic pressures pre-empt his attention and energy." They concluded that "the foreign student has to be seen in the institutional setting before we can begin to understand his career and his problems."

The Foreign Student as a Professional

An important group of studies deals with graduate students as representatives of a field or profession. Some of these studies examine not only problems and attitudes, but the content and usefulness of the curriculum. An overview of this approach to foreign student research is provided by a conference report on *The Professional Education of Students from Other Lands*, published by the Council on Social Work Education (Sanders, 1963). This report covered the fields of social work, education, medicine, health, and agriculture. Discussants were concerned not only with problems and attitudes, but with academic aspects of the foreign student experience, and with relating American curricular offer-

ings to student need. Speakers raised the question of whether universal principles could be identified in the professions, and how teachers could help foreign students to bring about social change. Background papers, reproduced in full at the end of the report, dealt with educational problems of foreign students in each field and with impediments encountered in achieving student and administrative goals.

Economics

Perhaps the classic study of professional training of foreign students is that by Clifton Wharton (1959) notable for its careful focus and marshaling of information. Not only did it concentrate on a single disciplinary specialty, agricultural economics, and on Asia, but it also explicitly limited itself to the professional problems experienced by foreign students and omitted their general adjustment problems. Based on surveys conducted both in the United States and in Asia, in which students, alumni, professors, and American economists working abroad were all questioned. Wharton's findings represent the most intensive analysis available of important substantive problems in the education of foreign graduate students, including applicability of what students learn to their home countries and the need for special courses. He also pointed out a major shortcoming of American professional education for foreign students only hinted at by professionals in other fields: "American agriculture is not world agriculture." In fact, he concluded, it is quite parochial in some respects, and techniques used here may not be at all appropriate in Asia.

Also concerned with professional development in economics was an evaluation report from the economics institute sponsored by IIE and the Ford Foundation from 1958 to 1967 (Owen, 1967). It was found that, after nine weeks of intensive English and special preparation in economics, 35 percent were "prepared to take graduate theory courses" compared with 13 percent at the time of entry, and 65 percent needed no further training in English, compared with 23 percent upon entry.

Social Work and Education

Several articles in professional social work journals discuss the special learning problems encountered by foreign students (Froehlich, 1953; Murase, 1961). Froehlich differentiated between students in social work

and those in fields that do not require job training. He depicted work in an American social work agency as fraught with tension and potential misunderstanding for both the foreign student and his supervisor. He also noted and deplored the tendency of some supervisors to apply less rigorous standards to foreign students than to Americans. (Footnotes refer to a series of articles on foreign social work students that might well be examined by those concerned with training foreign students in the professions.)

A follow-up study of graduates in the field of education was conducted by a Teachers College instructor who polled foreign doctoral alumni of the school (1946-1955) to find out "what problems you faced as a returned American-trained educator?" (Cajoleas, 1959). The vast majority of students gave a vote of confidence to their American educational experience, but 1 out of 5 said they "experienced problems in bringing about changes in education," 1 out of 10 complained of low salaries and lack of supporting funds, and 1 out of 12 was dissatisfied with his professional position. Cajoleas recommended that attention be given to "study of the process of social change, and the methods and techniques of bringing it about. . . ." Quoting Margaret Mead, he concluded: "The need now is to move away to new knowledge and skills, to a new place in a new social order. Education is now not for the maintenance of the old, but for change." (Had American educators heeded their own advice, they might have been better prepared for the social change that was about to occur in America.)

The College of Education at the University of Minnesota also attempted to find out what its graduates thought about their American education in retrospect. Robert Beck polled alumni from Asia and the Middle East to find out whether they were using their American education and what changes they would recommend in the curriculum (Beck, 1962). He found that all were able to use what they had learned "with varying degrees of success," and that most did not recommend major changes in the curriculum. "All foreign students in education whose stay in the U.S. was longer than two years felt that there was little need to accommodate to foreign students . . ." he reported.

Business Administration

Using a far more detailed questionnaire, the School of Business Admin-

istration of the University of Michigan tried to elicit specific information about which courses had proved most useful and least useful in practice (Scott, 1966). Polling 46 Asian alumni, Scott found that 87 percent considered their education useful, putting at the top of the list courses in marketing, statistics, and accounting. Additional courses they felt they needed included psychology, personnel administration, and motivation. A unique aspect of this study was the attempt to compare the views of Asian alumni with those of Americans. Only a few of the same questions were included in both surveys, but this research technique is one that should be followed more frequently. Scott asked both American and Asian business graduates about the kinds of objectives that should be sought by a school of business administration, and found that both groups favored broad objectives: problem-solving ability, analytical ability, and general business principles. In one area, however, they differed markedly: "Understanding the political, social, and economic environment of business" was put in second place as a goal by Americans and in seventh place by Asians. Also interesting was the difference in attitude toward the importance of an advanced degree: 27 percent of the Asians felt that a B.A. was sufficient preparation for a business career, although 78 percent of them held advanced degrees; on the other hand, fewer than 10 percent of the Americans felt that a B.A. was sufficient preparation for a career in business, although only 39 percent of them held advanced degrees.

Engineering

In a recent study Susskind and Schell (1968) found that 80 percent of the foreign students who received advanced degrees in engineering from the University of California, Berkeley, from 1954 to 1965 were "very satisfied or quite satisfied" with the education they received. (It should be noted that twice as many Europeans as Asians replied to the Susskind and Schell questionnaire, which may account for the somewhat lower proportion of satisfied customers. Whether due to politeness or different needs, students from developing countries seem generally more favorable toward American training than Europeans.) Of those from developing countries who held an American M.A., however, the authors reported that 31 percent considered American education "too theoretical."

Brain Drain Research

An important purpose of the Susskind and Schell study was to determine the whereabouts of engineering graduates from Berkeley, providing information about the extent of the brain drain in that field. They found that 30 percent of the M.A. holders and 62 percent of those with doctorates were still in the United States at the time of the survey. Some evidence was found that the more specialized the student's field, the more likely he was to stay. The authors quoted a dean at Stanford as saying that in fields such as aeronautics and chemical, civic, and mechanical engineering *all* of the students who earned doctorates in any given year were likely to remain in the United States—at least for the time being. (This situation may be changing, now that the American demand for technical graduates is dropping off.)

Medicine

The field of medicine produced several interesting studies and is important as a field in which many foreign graduates remain permanently. An early study by the Committee on Educational Interchange Policy (1957) documented worldwide shortages of medical personnel and pointed out that American hospitals (but *not* American medical schools, which were extremely difficult for foreign students to get into) were training large numbers of foreign physicians. The study mentioned the startling proportion of foreign interns and residents in American hospitals, at that time about one-fourth. It raised the question of the adequacy of the training received by these young doctors, quoting authorities who charged that they were assigned menial tasks with little educational value and were exploited in terms of low pay. It also noted that many doctors did not return to their home countries and stated unequivocally that they should do so in order to spread the benefits of their training to other countries.

In nursing, a five-year research project conducted by the American Nurses Foundation (Broadhurst, 1962) studied 60 graduate nurses before, during, and after their training in the United States. Follow-up on 10 of the nurses who returned to Europe showed that 5 had difficulty readjusting at home and finding jobs. "Many" felt that their stay in the United States had little professional value, although it was culturally and

intellectually worthwhile. About one-third of the 60 nurses either remained in the United States, returned later on an immigration visa, or were planning to return at the time they were interviewed.

In an effort to find out just how serious the training problem was in the field of medicine, a large-scale research project was undertaken by a team at the New York University Medical Center, sponsored jointly by NYU and by the Institute of International Education. Funds were obtained from the Department of Health, Education and Welfare. The result was a series of monographs and reports beginning in 1962, focused on cultural and personality factors affecting the adequacy of the training received by foreign physicians (Halberstam and Dacso, 1964, 1965, and 1966). The research covered the perceptions and evaluations of both foreign and American residents and of their supervisors. Among its extensive findings is that the performance of 15-25 percent of the foreign residents at the hospital were rated as poor by their supervisors.

Equally startling was the reported fact that 40 percent of the foreign residents expressed the intention of remaining in America and applying for American citizenship. Another article reported that surgeons especially are welcome in the United States and more readily accepted as doctors than their colleagues in internal medicine, physical medicine, and rehabilitation. They are also more likely to marry Americans (Marsh and Halberstam, 1966). The most recent report on this project deals with factors influencing the decision to seek a medical training abroad, specifically the relationship between cultural and vocational objectives (Antler and Halberstam, 1969).

Further statistics on the brain drain in medicine, based on a series of studies, can be found in the testimony given by Dr. Kelly West of the University of Oklahoma Medical Center at a special conference on the brain drain sponsored by the United States government (International Migration Conference, 1966).

Recent Brain Drain Research

In the past few years considerable additional research, conference reports, and an extensive bibliography (Dedijer and Svenningson, 1967) dealing with the brain drain have appeared. They cannot be dealt with in detail here, but several that involve graduate students will be mentioned. Under a Carnegie grant, Myers (1967) reviewed the literature

and the methodology of studying the brain drain. He also interviewed a sample of Peruvian students, 50 of whom were still in the United States and 150 of whom had returned home. A correlational analysis showed that the probability of return home was greater among graduate students, self-sponsored students, and students of lower-class status; also that students in science, engineering, and medicine were most likely, and students in agriculture least likely to remain in the United States. He recommended more study of the process by which the decision to study in the United States, as well as to stay in the United States, is made.

Also worthy of special mention is a compilation of articles by leading authorities on the brain drain, edited by Walter Adams, which includes case studies from various parts of the world (1968), a study for the Office of Education of Israeli students in the United States (Ritterband, 1968), and a monograph by Education and World Affairs (EWA) dealing with the impact of the brain drain on the developing countries, based on studies carried out in Asia, Africa, and Latin America (1970).

in Progress

Certain major studies involving graduate foreign students are in progress and should be mentioned. Ritterband and Warkov are in the process of analyzing data on 20,000 American and foreign graduate students, mostly scientists and engineers, collected by the National Opinion Research Center in 1963. Data include information on student performance, intention to remain in the United States, and productivity in the United States and abroad. This study is financed by The Ford Foundation.

A Unesco project conducted by William Glaser of the Bureau of Applied Social Research at Columbia involves a multicountry comparison of the brain drain in both European and non-European countries, and what happens when graduates return home. And the country studies resulting from the EWA monograph mentioned earlier will be published in late 1970.

Finally, AID in cooperation with the American Association of Collegiate Registrars and Admissions Officers is evaluating the performance of some 1,000 AID program participants who arrived in 1968 and 1969, half of whom are graduate students. English tests were given to these students on arrival, and these will be compared with their achievement,

as shown by grades and faculty reports. An AID-sponsored conference in December 1970 will discuss the findings.

Research Gaps

I shall not attempt to discuss in detail the kinds of additional research needed. Specific suggestions made by Margaret Cormack in her thorough evaluation of research for the State Department in 1962 are still valid, as are suggestions made by George Coelho (1962) and by this writer (1967). Two general points are perhaps worth making, however.

First, I would underscore the need to conduct foreign student research within the context of American education rather than in a vacuum. Foreign student problems and attitudes, as well as their goals, career orientations, use of training, and so forth, would all be far more comprehensible if studied in relation to those of American students and of students elsewhere. Foreign students are part of a student subculture; they are more student than foreign, as Selby and Woods put it, and they should be studied as such. Until we know more about student problems in general, we cannot tell which ones are unique to foreign students. An example of the research approach needed is provided by Gail Watt's study at the University of Minnesota comparing American and foreign students with respect to income and expenditure patterns (Watt, 1967).

Second, it is clear that beyond foreign student research as such lie many related areas of inquiry not involving students as subjects, but having a crucial bearing on the answers to policy questions in the exchange field. Foreign student research is clearly related, for example, to the study of the learning process in general, to personality growth and development, to perception of self and culture, and to even broader areas such as curriculum research, peace research, and conflict research. Those interested in doing research on exchange must find ways to utilize and build on the existing foundation of concepts in these areas. Questions about the effectiveness of exchange in reducing provincialism or creating world awareness, for example, are directly related to theories of personality growth and of attitude change and cannot be analyzed without insights from these areas of psychology.

Research on Social Change

One potential area for research that involves both American and foreign

students and has significance far beyond the exchange field is research related to social change, including the responsibility of professional people for bringing about social change. A rereading of the literature on the education of foreign graduate students reveals that, while there is much discussion of the need for preparing students to bring about social change at home, there is great uncertainty about whether and how this is being done. The question for research might be formulated roughly as follows: To what extent does graduate study in the United States strengthen motivation and capacity to bring about innovation and change? A comparative study might be undertaken of attitudes toward innovation and change held by both foreign and American students at the beginning and at the end of their professional studies. The results would surely be of interest to educators here and abroad.

Or the question might be formulated as a negative hypothesis: that professional training, as it exists in the United States today, tends to diminish aspiration toward social change and reinforce career aspirations toward money and prestige, replacing whatever "idealistic" goals are held by students with pragmatic goals. (If this were found to be true it would, of course, help to explain the brain drain.)

Related questions are: To what extent is the value and importance of public service a part of the philosophy taught in graduate and professional schools in the United States today? To what extent are the values and principles taught in these schools applicable to other countries? Which of our generalizations about social practice have universal application?

A final suggestion. There has been little serious study of curriculum for foreign students in general. When curriculum is discussed it is in the context either of orientation or of special courses for foreign students. It has been suggested tentatively that perhaps if special courses are needed by foreign students to make their education relevant to their needs, Americans should be allowed to take such courses also. It is more than clear today that many American students agree with this point of view. Research on curriculums that are both relevant *and* of sound academic content is certainly in order.

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